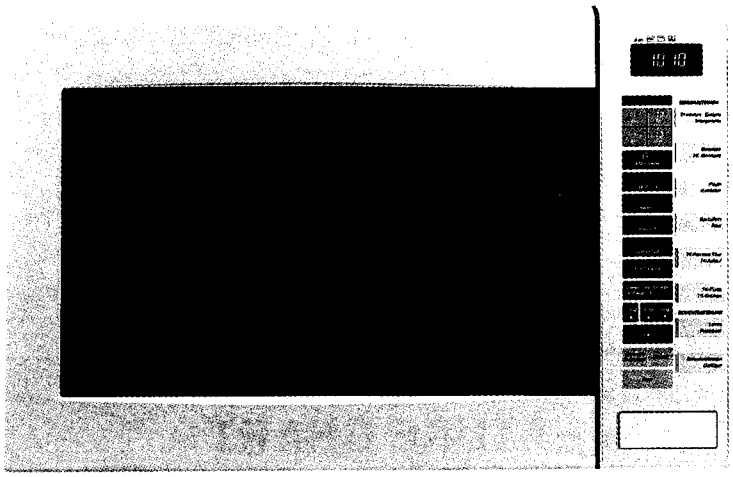
ORDER NUMBER:MOP9706007C2

Service Manual

MICROWAVE OVEN

NN-C897WB
NN-C897CB
NN-C877WB
NN-C877CB



SPECIFICATIONS:

Power source:	240VAC Single phase 50Hz
Power requirement:	1300W Micro 1560W Grill Conv 1330W 2840W Max
High Frequency Output:	800W (IEC 705) 2450Mhz
Timer:	99Min 99Sec
Outside dimensions:	530mm(W) x 507mm(D) x 345mm(H)
Oven cavity dimensions:	350mm(W) x 360mm(D) x 250mm(H)
Weight:	27Kg
Specifications subject to change without notice	

Panasonic

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! WARNING

This service manual information is designed for experienced repair technicians only and is not designed for use by the general public. It does not contain warnings or cautions to advise non technical individuals of potential dangers in attempting to service a product. Products powered by electricity should be serviced or repaired only by experienced professional technicians. Any attempt to service or repair the product or products dealt with in this service information by anyone else could result in serious injury or death.

This service manual covers models for use in the following countries, the appropriate suffixes are shown.
BPQ.....For the United Kingdom

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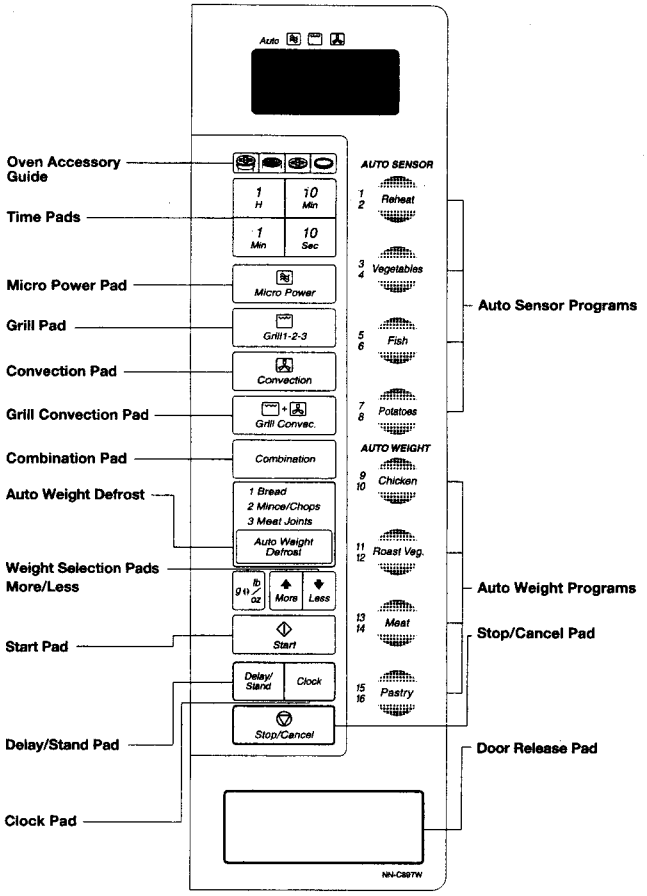
FEATURE CHART

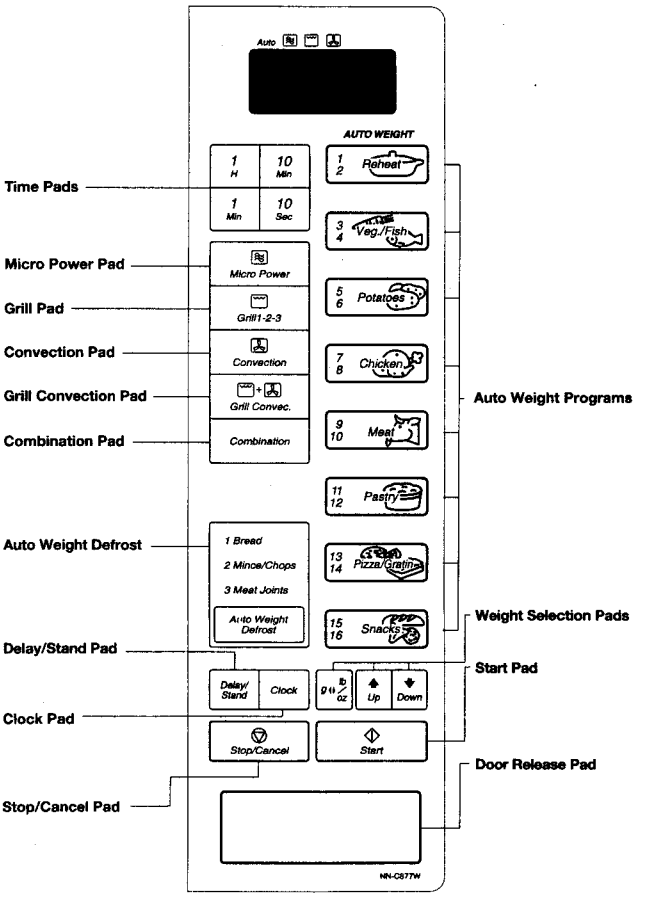
FEATURE	NN-C877WB NN-C877CB	NN-C897WB NN-C897CB
MICROPOWER	O	O
MEMORY STAGE COOKING	3	3
GRILL	O	O
CONVECTION	O	O
COMBINATION COOK	O	O
AUTO WEIGHT COMBINATION	O	O
AUTO WEIGHT DEFROST	O	O
SENSOR COOK	-	O
SENSOR REHEAT	-	O
SENSOR COMBINATION	-	O
DELAY STAND	O	O
DIGITAL CLOCK	O	O
Kg / Lb oz	O	O
WORD PROMPT	O	O
COOK NAVIGATION	-	O
CHILD LOCK	O	O
DEMONSTRATION MODE	O	O

CONTROL PANEL

NN-C897WB
NN-C897CB



NN-C877WB
NN-C877CB



QUICK GUIDE TO OPERATION

1. How to set the clock.

Clock — Press the clock pad. — 1 10 / 1 10 — Set time. — Clock — Press the clock pad again.

2. Demonstration mode. (With no microwave power.)

Clock — Press three times. — DEMO MODE — Clock — To cancel demo mode press the clock pad three times.

3. Child Lock.

Start — Press three times. — LOCK — Stop/Cancel — To cancel demo mode press the clock pad three times.

4. Microwave cooking.

Micropower — Select power level — 1 10 / 1 10 — Select cooking time. — Start — Press the start pad.

5. Using the Stand feature.

Power level & time — Set cooking program — Delay/Stand — 1 10 / 1 10 — Set standing time. — Start — Press the start pad.

6. Using the Delay feature.

Delay/Stand — Press the Delay pad. — 1 10 / 1 10 — Power level & time — Start — Press the start pad.

7. Grilling.

Grill — Press the Grill pad. — Start — Press Start to preheat (When grill is ready oven will beep and 'p' will flash.) — 1 10 / 1 10 — Start — Press the start pad.

8. Convection cooking (With pre heat.)

Convection — Press the convection pad. — Start — Press Start to preheat (When grill is ready oven will beep and 'p' will flash.) — 1 10 / 1 10 — Start — Press the start pad.

9. Grill and convection.

Grill & Con — Press the grill & convection pad. — Start — Press Start to preheat (When grill is ready oven will beep and 'p' will flash.) — 1 10 / 1 10 — Start — Press the start pad.

10. Combination cooking (Convection and microwave.)

Combination — Press the combination pad. — Convection — Press the convection pad. — Micropower — Press the micropower pad. — 1 10 / 1 10 — Start — Press the start pad.

11. Combination cooking (Grill and microwave.) **Note: Preheat oven before using this mode.**

Combination — Press the combination pad. — Grill — Press the grill pad. — Micropower — Press the micropower pad. — Start — Press the start pad to preheat.

1 10 / 1 10 — Set the time. — Start — Press the start pad.

12. Combination cooking (Grill convection and microwave.)

Combination — Press the combination pad. — Grill & Conv — Press the grill pad. — Micropower — Press the micropower pad. — 1 10 / 1 10 — Set the time.

— Start — Press the start pad.

13. Auto sensor programs. (NN-C897WB NN-C987CB only.)

1. 2. Reheat — Press desired pad. — Start — Press the start pad.

14. Auto weight cook programs.

11. 12. Roast veg. NN-C897WB NN-C897CB.

— g / lb / oZ — Select weight — Start — Press the start pad.

5. 6. Roast veg. NN-C877WB NN-C877CB

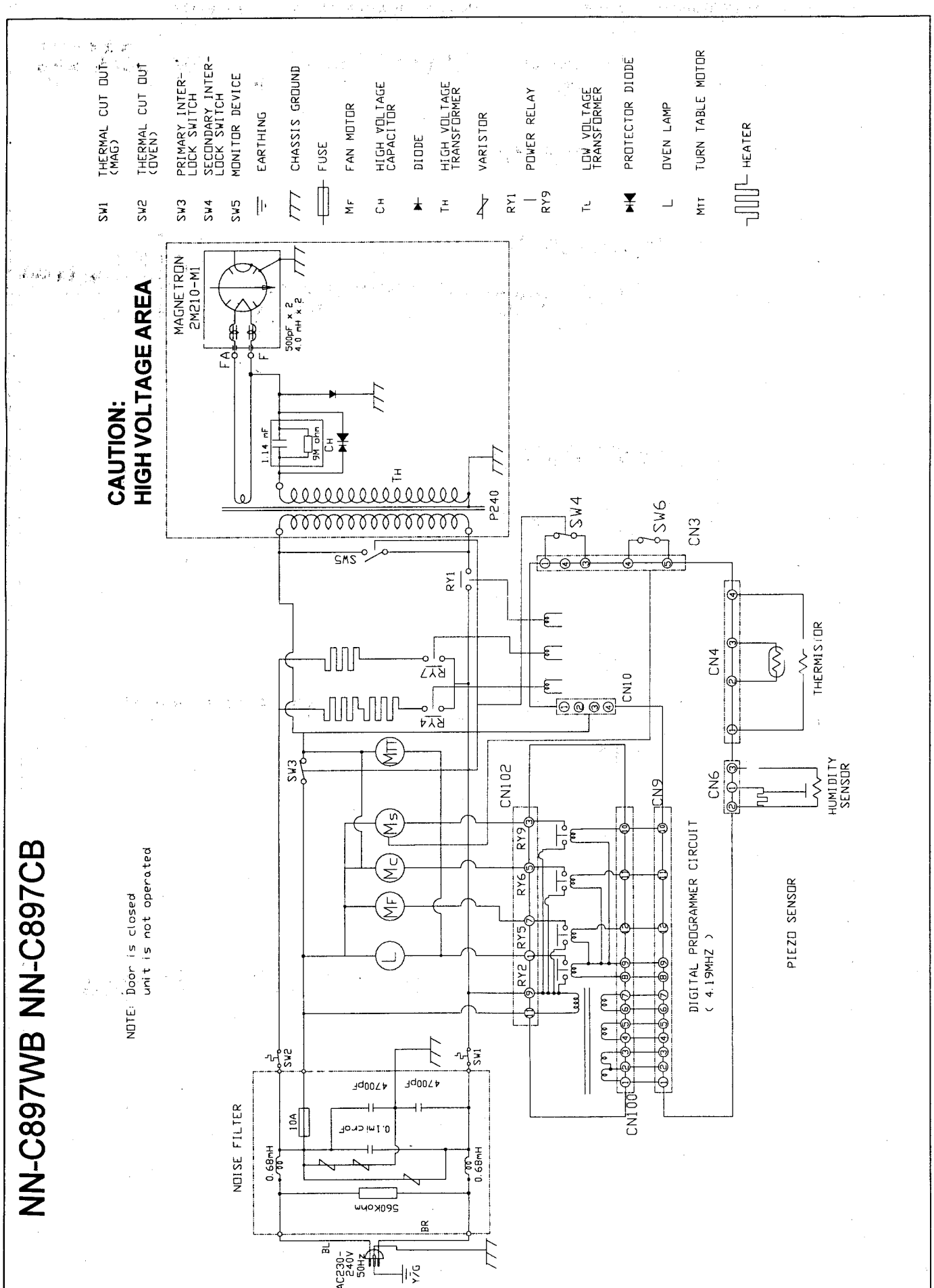
15. Auto weight defrost.

1. Bread
2. Mince/Chops
3. Meat joints

Auto weight defrost

Press desired menu pad. — g / lb / oZ — Select weight — Start — Press the start pad.

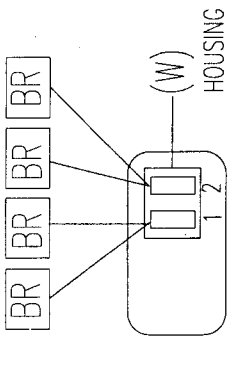
SCHEMATIC DIAGRAM

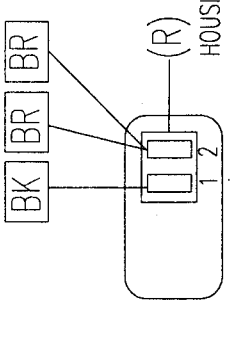


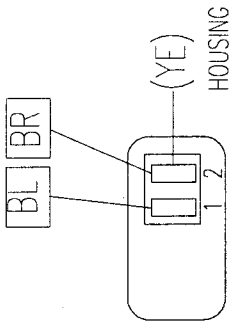
WIRING

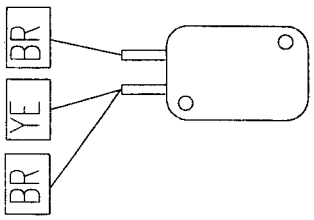
NN-C897WB NN-C897CB

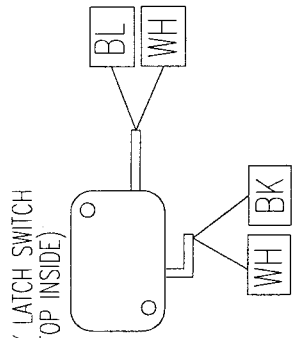
SYMBOL	COLOUR
BK	BLACK
OR	ORANGE
BR	BROWN
YE	YELLOW
BL	BLUE
W	WHITE
PI	PINK

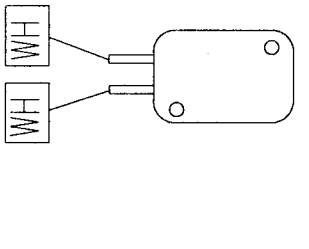






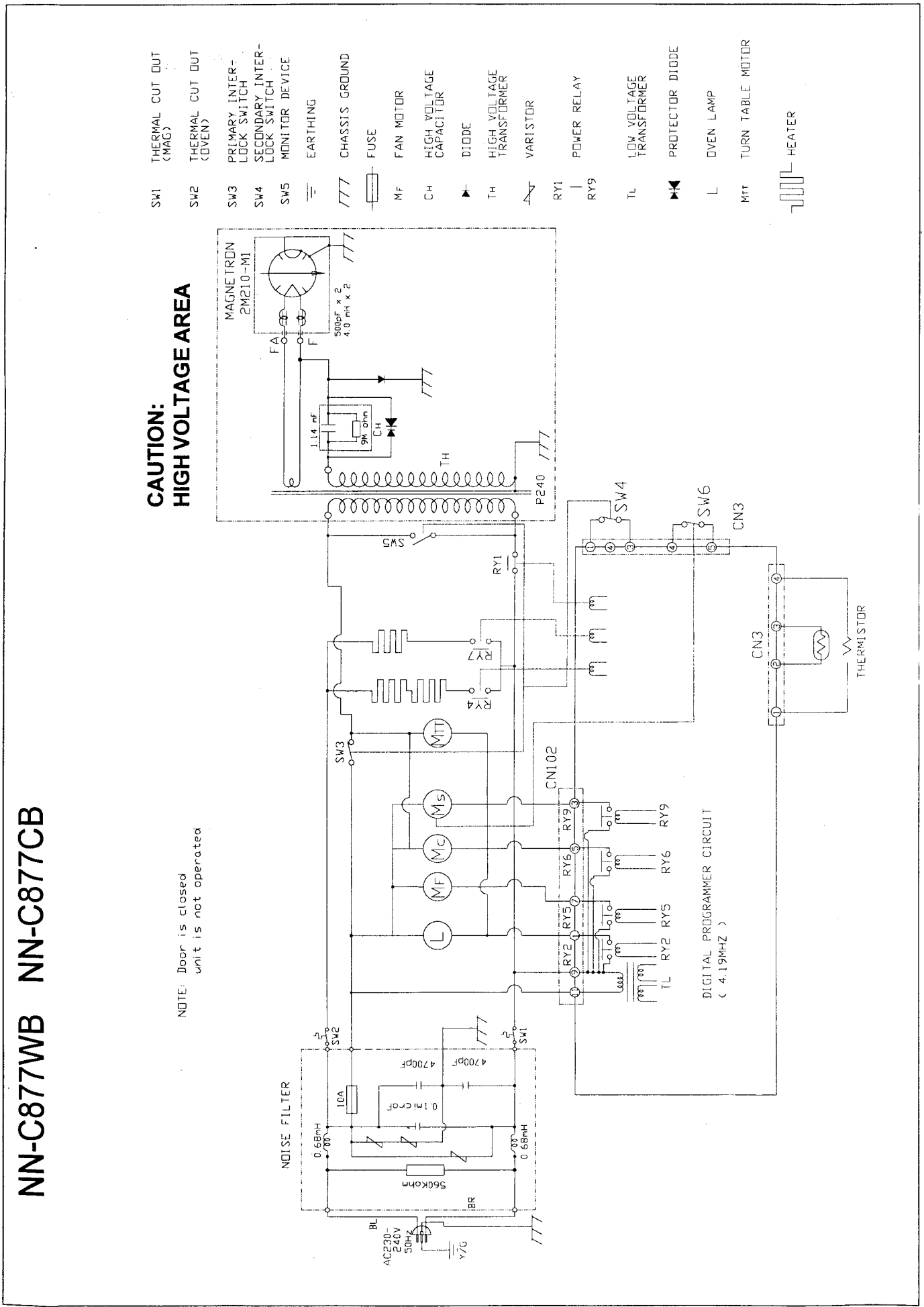






NOTE: When reconnecting any lead wires, please check the colours of the wires against the drawing below.

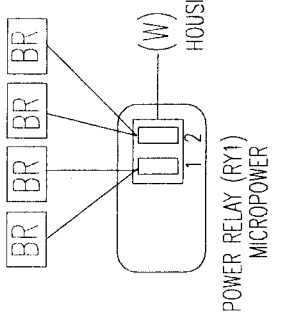
SCHEMATIC DIAGRAM

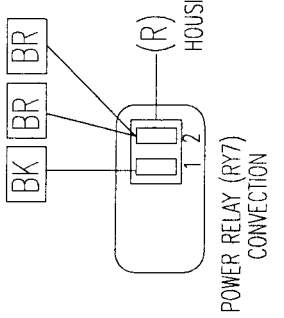


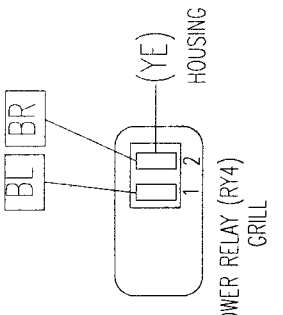
WIRING

NN-C877WB NN-C877CB

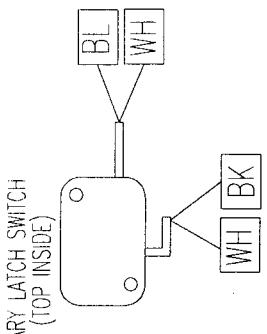
SYMBOL	COLOUR
BK	BLACK
OR	ORANGE
BR	BROWN
YE	YELLOW
BL	BLUE
W	WHITE
PI	PINK

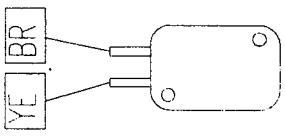


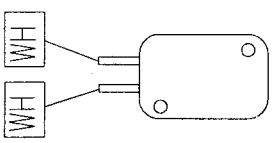




NOTE: When reconnecting any lead wires, please check the colours of the wires against the drawing below.







CAUTIONS TO BE OBSERVED WHEN TROUBLESHOOTING

CAUTION

Whilst repairing the microwave oven, please remove,all hand and wrist jewelery.

1. **Check the earthing**
   Do not operate the unit without an earth wire. Always check the unit is earthed before operating.

2. **Door adjustment**
   If making any adjustments or replacements regarding the door assembly. Please check the following.

   a) The door closes tightly after adjustment or replacement.
   b) There is no broken hinge or door arm.
   c) The door seal is not damaged
   d) The door is not bent or warped
   e) There is no visible damage.

3. **High voltage charge in the capacitor**
   After operating the microwave oven, before any troubleshooting you must discharge the high voltage capacitor as shown in the drawing. You must use a insulated tool capable of withstanding a voltage of **5KV.**

4. **High voltage components**
   Voltages above **250V** exsist on the following parts during operation of the microwave oven.

   *Magnetron
   *High Voltage Transformer
   *High Voltage Diode
   *High Voltage Capacitor

   Treat the above as high voltage components, do not work on these parts whilst the unit is in operation. Do not try to measure any voltages in the high voltage part of the circuit.

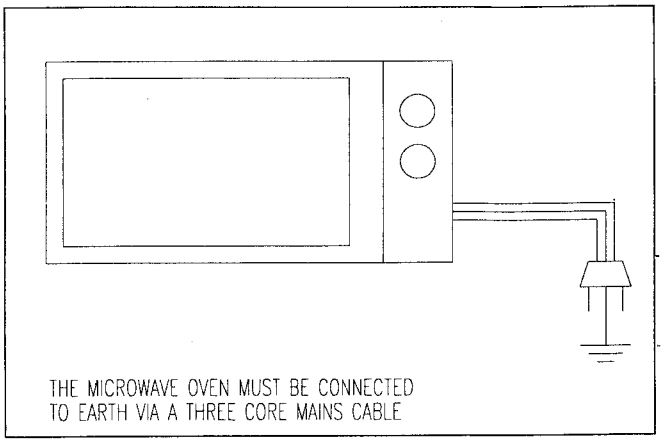
5. **Confirm after repair**
   A) After repair or replacement of parts, make sure that the screws of the oven, are neither loose nor missing. Microwaves may leak if screws are not properly tightened.
   B) Make sure that all electrical connections are tight before inserting the plug into the wall outlet.

6.

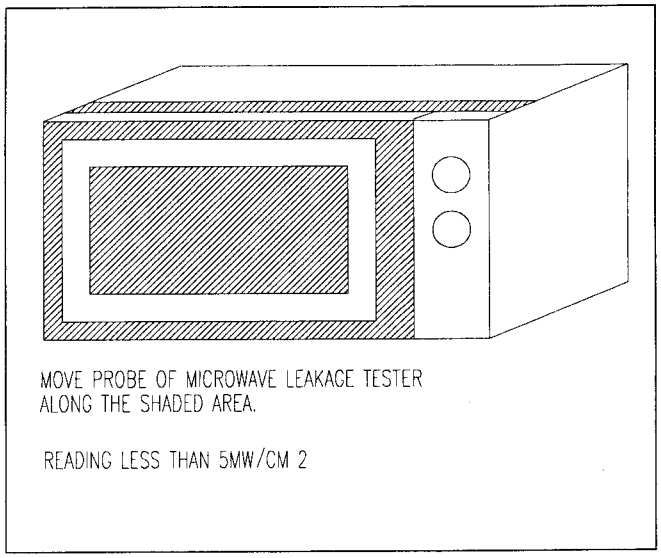
CAUTION

MICROWAVE ENERGY LEAKAGE

To avoid microwave leakage make sure that the magnetron is attached to the oven cavity securely and that the flange is sealed correctly. Never operate the oven empty always place an absorbing load inside the oven cavity during use.

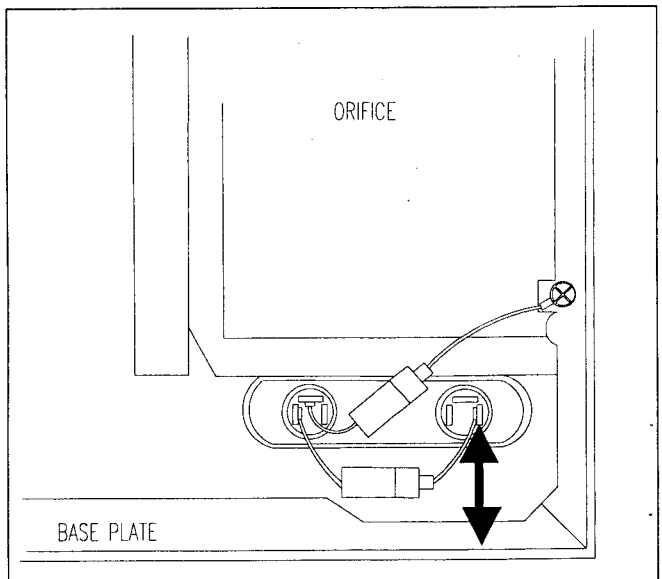


THE MICROWAVE OVEN MUST BE CONNECTED TO EARTH VIA A THREE CORE MAINS CABLE



MOVE PROBE OF MICROWAVE LEAKAGE TESTER ALONG THE SHADED AREA.

READING LESS THAN 5MW/CM 2



DISCHARGE CAPACITOR BY CONNECTING THE CAPACITOR TERMINAL TO THE OVEN CHASIS. TO DO THIS USE AN INSULATED HANDLE SCREW DRIVER.

DESCRIPTION OF OPERATING SEQUENCE

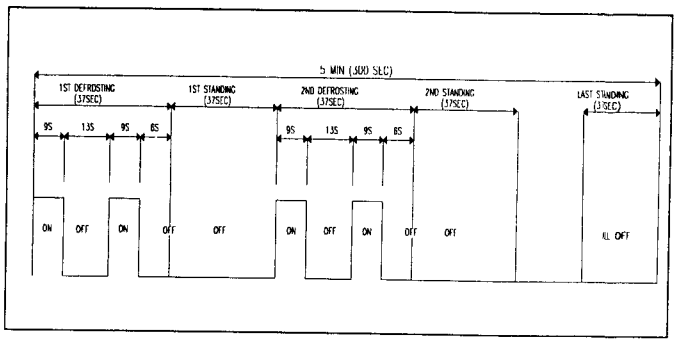
1. Variable power cooking control

The coil of power relay (RY1) is energised intermittently by the digital programmer circuit, when the oven is set at any power selection, othe, than high power. The digital programmer circuit controls the ON OFF time of power relay 1, this varies the output power of the microwave oven from "WARM" to "HIGH" power. One complete ON and OFF cycle of power relay 1 is 2 seconds.
The relationship between indications on the control panel and the output of the microwave oven is as shown in the table.
NOTE: The ON OFF time ratio does not correspond with the percentage of microwave power since approximately 2 seconds are required for heating of the magnetron filament.

Power setting	Output power	RY1 ON (sec)	RY1OFF(sec)
800W	HIGH	22	0
270W	DEFROST	9	13
600W	MEDIUM	17	5
440W	LOW	13	9
250W	SIMMER	8	14
100W	WARM	5	17

2. Cyclic defrost

When the defrost power and defrosting time is selected and the start pad is pressed.
(A) The digital programmer circuit divides the total defrosting time into 8 equal periods, consisting of four defrosting periods, each followed by a standing period.
(B) During defrosting power periods, power relay 1 is energised for 9 seconds and de energised for 13 seconds by the DPC.
(C) During standing periods, power relay 1 is always open resulting in no microwave power.



NOTE: Defrost time selected is converted into seconds by the DPC, the display will show the selected time in minutes and seconds as programmed. The remainder (seconds not equally divisible by 8) are added to the last standing time period.

EXAMPLE: If the defrosting time is selected for 5 minutes, each operating period will be as follows:

5 minutes = 300 seconds
300/8 = 37 and remainder is 4 seconds

The four seconds is added to the last time period.

NOTE: When defrosting time is selected for not more than 7 seconds, power relay 1 will not be energised at all.

3. Grill cooking

There are three grill power settings.
The digital programmer circuit controls power relay 4 to energise the grill ON and OFF for the time settings as shown in the table.

POWER SETTING	RY4 ON (SEC)	RY4 OFF (SEC)
GRILL 1 (1500W)	66	0
GRILL 2 (1200W)	54	12
GRILL 3 (950W)	42	24

4. Auto weight defrost / Auto weight cook

The Auto weight defrost key is pressed:
(A) Depending on the category of food and the weight selected the digital programmer automatically sets a time for the food to cook correctly.
(B) The table shows an example of cooking times depending on the category of food and the weight selected.
NOTE: After auto cooking if the oven temperature is over the predetermined temperature the fan motor rotates to cool the oven and its components.

Auto weight defrost

CATEGORY	WEIGHT	TIME
BREAD	200 g	48 SEC
MINCE/CHOPS	200 g	4 MIN 00 SEC
MEAT JOINTS	100 g	3 MIN 30 SEC

Auto weight cook (NN-C897WB NN-C897CB)

CATEGORY	WEIGHT	TIME
9. WHOLE CHICKEN	1000 g	23 MIN
12. ROAST VEGATABLES	500 g	26 MIN
14. CASSEROLE	1000 g	1 HR 38 MIN

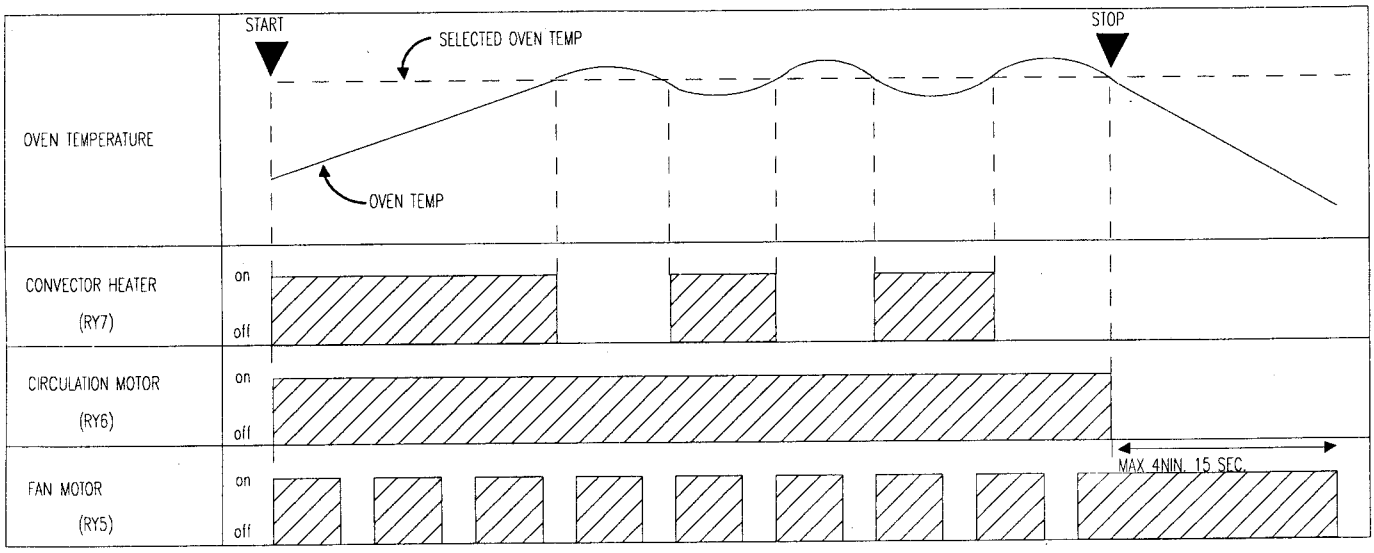
Auto weight cook (NN-C877WB NN-C877CB)

CATEGORY	WEIGHT	TIME
7. WHOLE CHICKEN	1000 g	23 MIN
14. FROZEN GRATIN	500 g	23 MIN 10 SEC

5. Convection cooking

(A) The digital programmer circuit operates the power relay 5, 6 and 7, by control signals that are at the specific timing as shown in the figure.
(B) When the oven temperature reaches the predetermained temperature, the digital programmer circuit stops supplying power to relay 7 resulting in the convection heater turning off.
(C) When the oven temperature drops below the predetermained temperature, the digital programmer circuit supplys power to relay 7 resulting in the convection heater turning on.

NOTE After the convection process, if the oven temperature is higher than the predetermained temperature, the fan motor rotates for 4 minutes 15 seconds to cool the electric compnents and oven.



6. Combination cooking control

Combination cooking is accomplished by operating the microwave and heater modes simultaneously during one combination cooking cycle. There are 3 combination modes:

1. Grill combination (Grill + Microwave)
2. Grill / Convection (Grill + Convection)
3. Convection combination (Convection + Microwave)

(A) The digital programmer circuit operates the power relays 1,5,6 and 7 at the specific duty cycles as shown in the table.

(B) When the oven temperature reaches the predetermained temperature, the digital programmer circuit stops supplying power to relay 7 resulting in the convection heater turning off. During this time the digital programmer circuit continues supplying power to realy 1 so that microwave activity continues at the duty cycle selected, The microwave activity continues to cycle until the entire cooking program is completed.

(C) When the oven temperature drops below the selected temperature, the digital programmer circuit operates power relay 7 again switching on the heater elements at the predetermained timing.

NOTE: After combination cooking, if the oven temperature is higher than the predeteramianed temperature, the fan motor rotates for 4 minutes 15 seconds to cool the electric components and the oven.

Grill and microwave combination

GRILL HEATER			MICROWAVE		
	On	Off		On	Off
1 (1200W)*	54	12	WARM	12	54
2 (950W)	42	24	SIMMER	24	42
			WARM	12	54
3 (750W)	34	32	MEDIUM	51	15
			LOW	39	27
			SIMMER	24	42
			WARM	12	54

Grill and convection combination

CONVECTION		GRILL		
			On	Off
OVEN TEMP	100-250 C	*1 (1500 W)	66	0
		*2 (1000W)	48	18
		3 (950W)	42	24

Convection and microwave combination

CONVECTION		MICROWAVE		
			On	Off
OVEN TEMP	100-250 C	*MEDIUM	51	15
		LOW	39	27
		SIMMER	24	42
		WARM	12	54

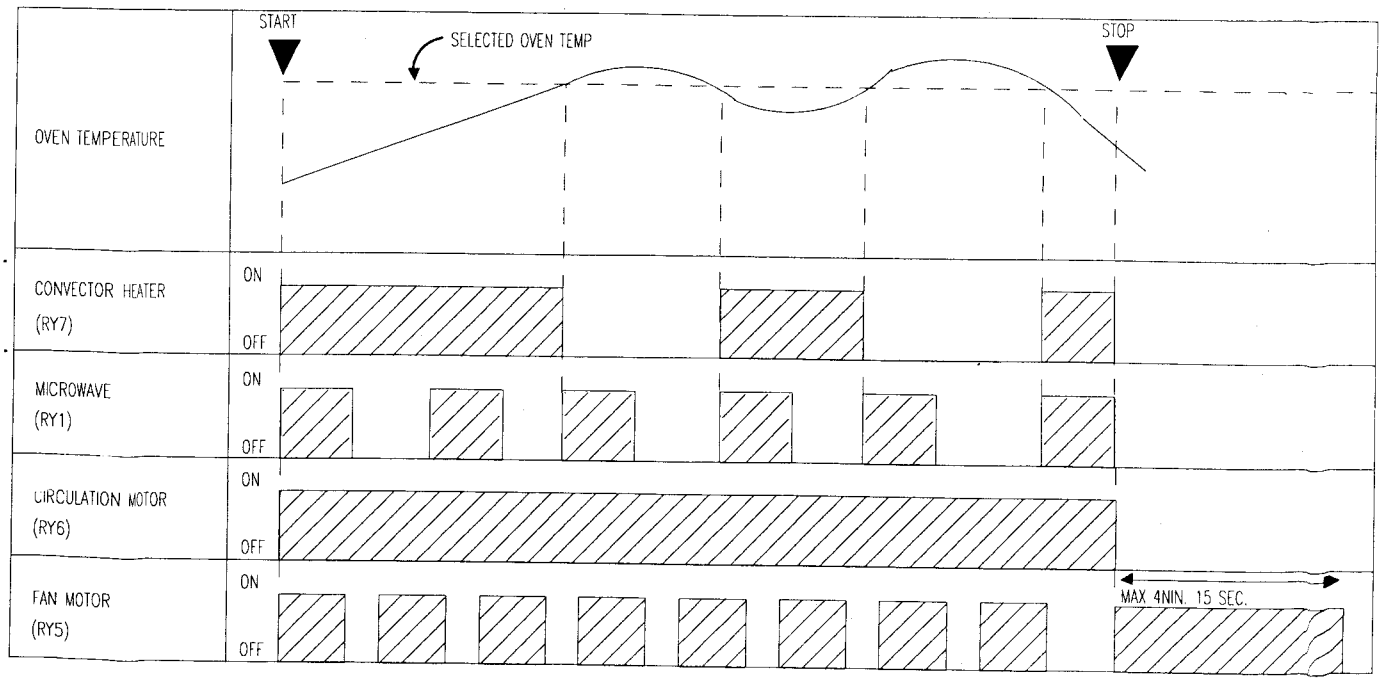
Grill, convection and microwave combination

CONVECTION	GRILL HEATER			MICROWAVE		
		ON	OFF		ON	OFF
OVEN TEMP 100-250C	*1.(1500W)	66	0	WARM	12	54
	*2.(1100W)	48	18			

* After 8 minutes the duty cycle will change to 42 on 24 off. The microcomputer will not recount this 8 minutes if the door is opened.

	GRILL HEATER			MICROWAVE		
		ON	OFF		ON	OFF
TEMP 100-250C	3. (950W)	42	24	*MEDIUM	51	15
				LOW	39	27
				SIMMER	24	42
				WARM	12	54

*If the oven temperature is equal to or above 200 C then 600W (medium) cannot be set



6. Auto sensor (NN-C897WB NN-C897CB)

As food cooks a certain amount of steam is produced. If the food is covered this steam builds up and eventually escapes from the container. In Auto sensor cooking, a carefully designed instrument called the humidity sensor element detects this escape of steam. Based upon the auto sensor program selected the microcomputer will automatically determain the correct power level and the correct length of time for the food to cook perfectly.
NOTE: Auto sensor cooking is successfull with the foods and recipes found in the auto sensor cooking guide. Due to the vast differances in food compisition items not mentioned in the cooking guide should be prepared in the microwave oven using the standard power select and time features. Please consult the variable microwave cookbook for procedures.

Explanation of the autosensor cooking process

(1) The shaded columns in the graph indicate when the humidity sensor element is on.
(2) During the second 30 second period there is no microwave activity, and when calculating the T2 time by using the formula below make sure this time is subtracted from the T0 time.
(3) T1 time... The total amount of time it takes the microwave oven to switch to the T2 time. During this time one of the Auto sensor programs will be shown in the display.
(4) Time T2... When the steam escapes from the cooking container placed in the oven, the humidity sensor detects it and the microprocessor calculates the balance of cooking time. This T2 time is shown in the display and starts to count down.

Balance of cooking time (T2 time)

The balance of cooking time which is called T2 time can be calculated using the following formula.

T2 time = T1 time x K factor

NOTE: When caculating the T2 time , the time in seconds is rounded to the nearest facor of ten. For example:

T1 time = 76 seconds
T2 time = 70 seconds x K factor

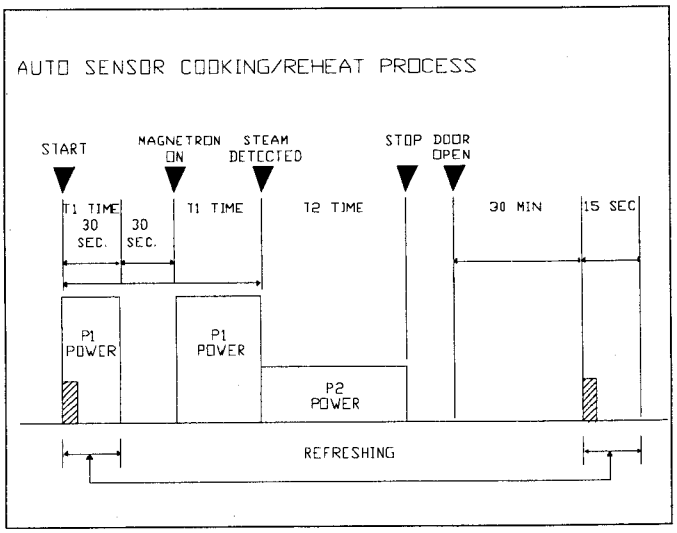
The T1 time will start after the start pad is pressed. The coefficient K is programmed into the microprocessor memory, the table above shows examples of power and the K factors for certain catergories. When the "more" or "less keys" are pressed, the K factor will vary resulting in the T2 time also varying.

Example of T2 time calculation.

If the T1 time is measured to be 2 minutes and 45 seconds and the auto program selected in (AUTO SENSOR COOK)
5. Fresh fish
T2 = T1 x K
= 2 min 45 sec x 0.3
= 160sec x 0.3
= 48 sec

AUTO SENSOR

CATEGORY	POWER 1	POWER 2	K FACTOR
REHEAT FRIDGE	HIGH	HIGH	0.5
REHEAT ROOM	HIGH	HIGH	0.7



NOTE: YOU CANNOT OPERATE THE AUTOSENSOR PROGRAMS UNTIL 3 MINUTES HAS ELAPSED AFTER FIRST PLUGGING IN THE OVEN

7. Cook navigation system. (NN-C897WB NN-C897CB)

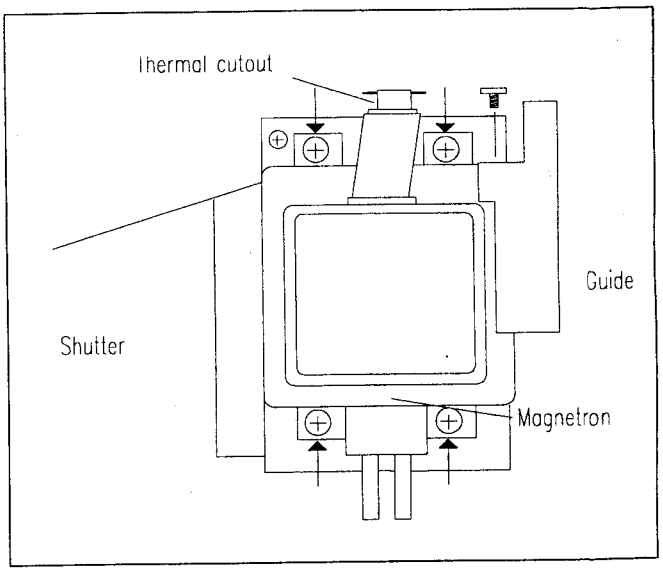
The purpose of the cook navigation system is to simplify the operation of the microwave oven, this is achieved by revealing the key pads in the correct sequence to guide the operator in the programming and operation of the microwave oven.

During programming of the microwave oven the DPC outputs digital signals to a liquid crystal display. The liquid crystal display is placed between the membrane keypad and the escutcheon sheet. The digital output received by the liquid display results in certain segments of the displayed opening. The opening of these segments has the effect of indicating which keys can be operated next in the sequence for correct programming of the microwave oven.

PARTS REPLACEMENT PROCEDURE

1. Magnetron

(A) Discharge the high voltage capacitor
(B) Dissconnect the cables to the thermal cutout.
(B) Remove the 1 screw holding the thermal cutout bracket to the magnetron.
(C) Remove the thermal cutout bracket.
(C) Remove the screw holding the air guide A
(D) Disconnect the 2 lead wires from the magnetron filament terminals.
(E) Remove the screw holding the exhaust guide to the magnetron
(F) Remove the 4 screws holding the magnetron as shown in the drawing.



NOTE: After replacement of the magnetron, tighten the screws properly making sure there is no gap between the waveguide and magnetron to prevent microwave leakage.

CAUTION
When replacing the magnetron, be sure the attenna gasket is in place.

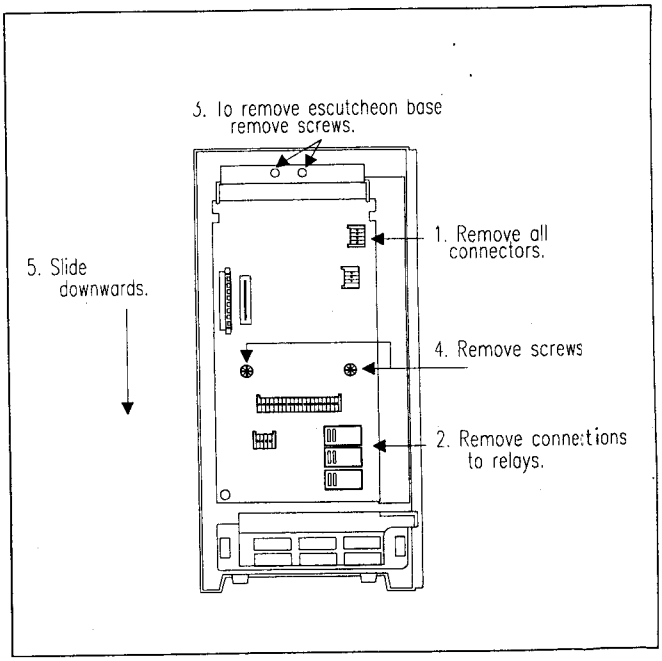
2. Digital programmer circuit and escutcheon base

NOTE: Always connect yourself to ground before handling the DPC board, not doing so could result in damage to the components on this board.

(A) Dissconnect all connectors from the DPC
(B) Remove the two screws at the top of the escutcheon base and slide the escutcheon base upward slightly.
(C) Remove the ribbon cable of the membrane key pad from connector CN7, remove the lock by pushing both levers at the side of the connector inwards and then pulling upwards.
(D) Remove the cable conected to the LCD by pulling it upward from the connector CN3.
(E) Remove the two screws holding the DPC, carefully remove the DPC from the Escutcheon base.

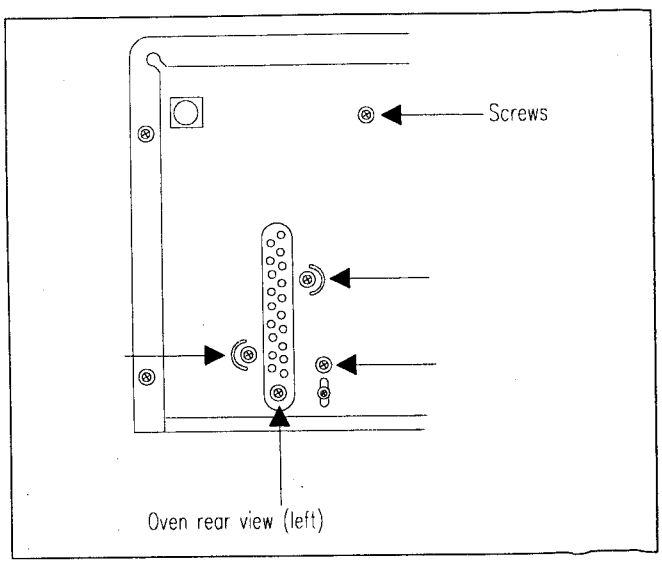
NOTE: It is not possible to change the Membrane keypad, the escutcheon sheet or the liquid crystal display separately.

NOTE: When desoldering any power relays or components from the DPC do not use a soldering iron or desoldering tool of more than 30 watts.


3. To remove escutcheon base remove screws.
1. Remove all connectors.
5. Slide downwards.
4. Remove screws
2. Remove connections to relays.

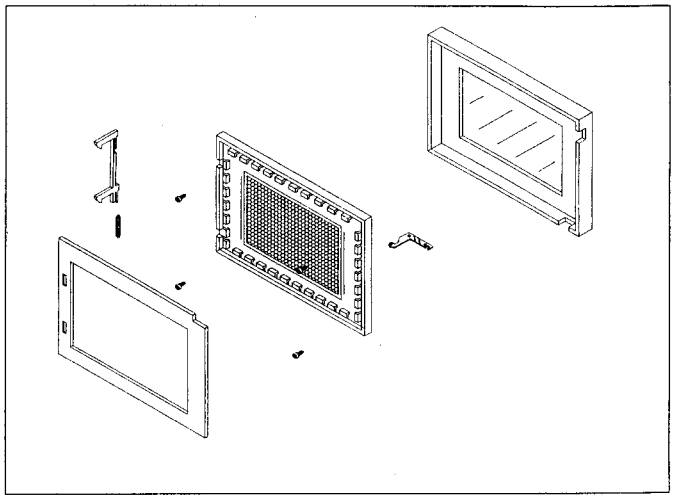
3. Fan motor

(A) Disconnect the 2 lead wires from the fan motor terminals.
(B) Remove the noise filter by freeing the catch hooks.
(C) Disconnect 4 high voltage lead wires from the high voltage capacitor terminals.
(D) Remove the 5 screws holding the fan motor and orifice assembly, detach the orifice assembly and fan motor from the Oven.
(E) Remove the fan blade from the motor shaft by pulling it straight out.
(F) Seperate the fan motor from the orifice assembly by freeing the two catch hooks on the orifice assembly.



4. Door assembly

NOTE: You must remove Door C before removing Door A.
(A) Separate door C from door E and door A by inserting a flat blade screwdriver between them.
(B) Remove door A from door E by removing the 2 screws on the side of door A. Also the 4 screws from the door E. You will now be able to remove the door A assembly from door E.
(C) Remove the door key and door key spring.
NOTE: Door C is attached to door E and door A by hooks. The hooks may be damaged or broken when separating.
After replacement of the defective componant parts of the door reassemble it and follow the instructions below for proper installation and adjustment so as to prevent an excessive microwave leakage.

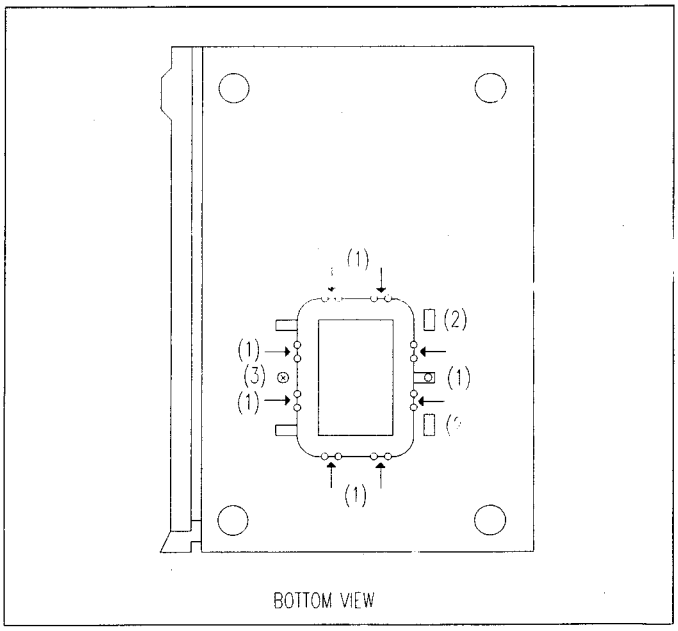


(1) When mounting the door to the oven, be sure to adjust the door parallel to the bottom line of the oven face plate by moving the upper hinge in the direction necessary for proper alignment.
(2) Adjust so the the door has no play between the inner door surface and the oven front surface. if the door assembly is not mounted properly, microwaves may leak from the clearance between the door and oven.
(3) Perform the microwave leakage test.

5. Turntable motor

(A) To remove the motor cover plate cut the 8 points indicted by the arrows in the drawing.(1)
(B) Disconnect the lead wires connected to the motor.
(C) Remove the turntable motor by removing the two screws.

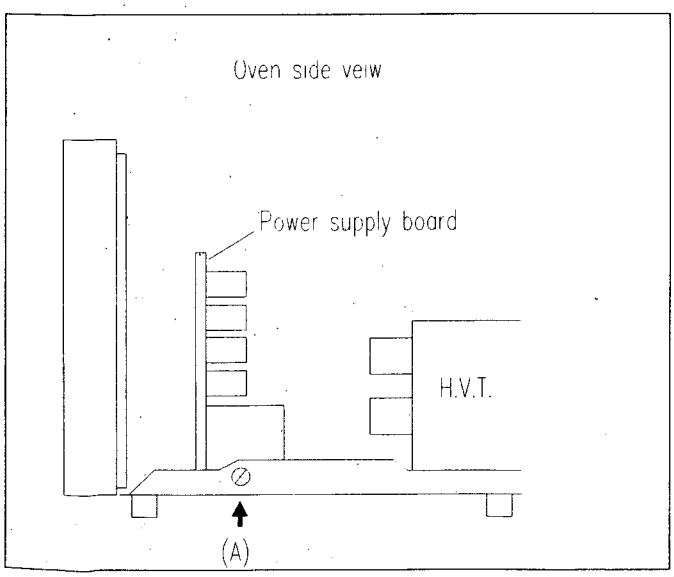
NOTE: To refit the motor cover reverse the fitting of the plate and fit the lugs into the slots (2). Fix using a screw as shown in the drawing.(3)

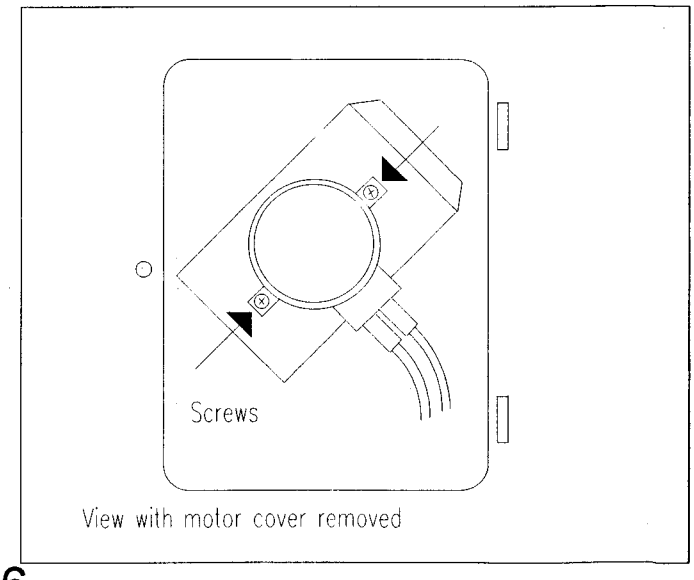


6. Power supply board and low voltage transformer

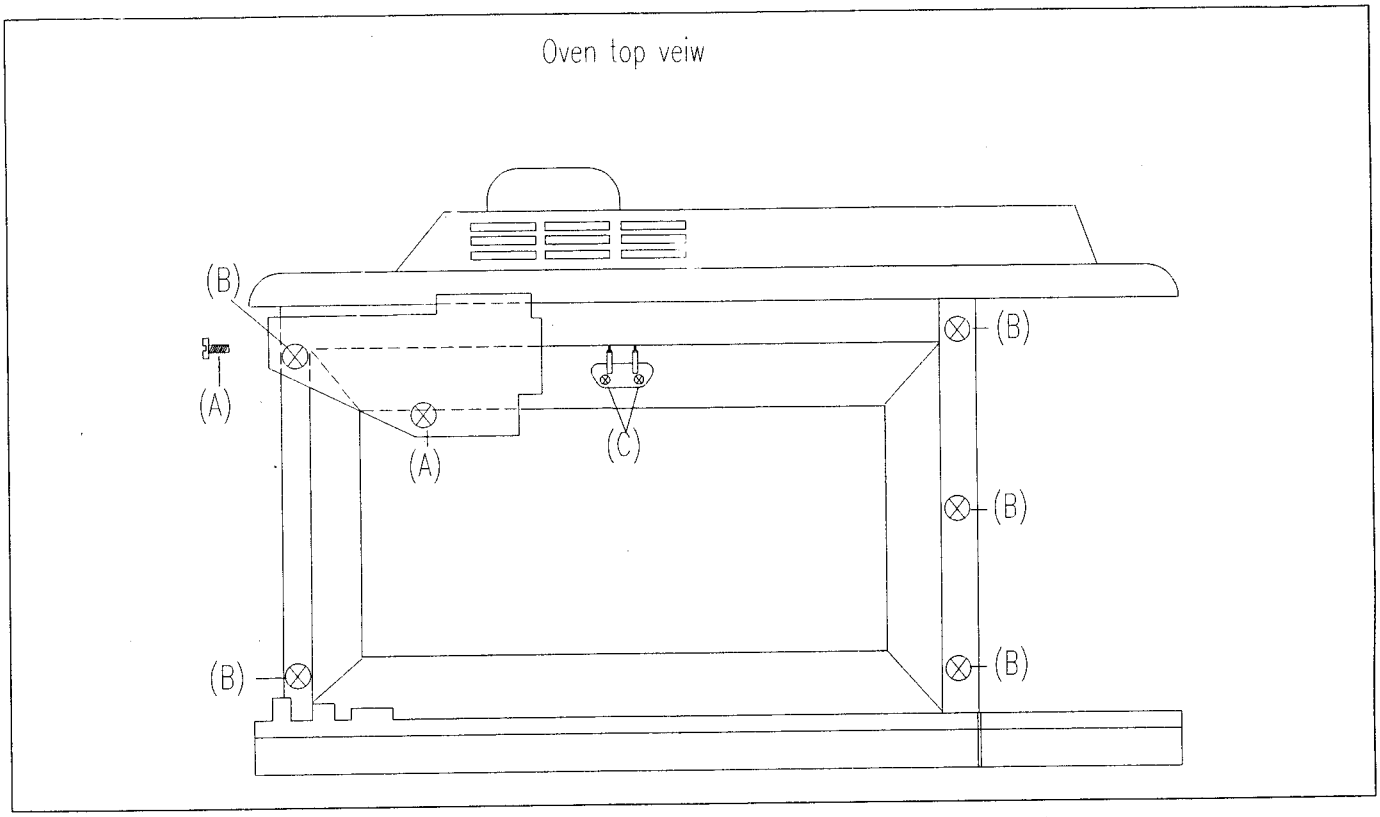
1) Remove the outer panel.
2) Remove the connector CN9 from the D.P.C.
3) Disconnect the wire harness block connector.
4) Remove the power supply board from the supply bracket by removing the 1 screws (A) shown in the drawing.

Note: When desoldering the low voltage transformer or power relays from the power supply board, do not use a soldering iron or desoldering tool of more than 30 watts.

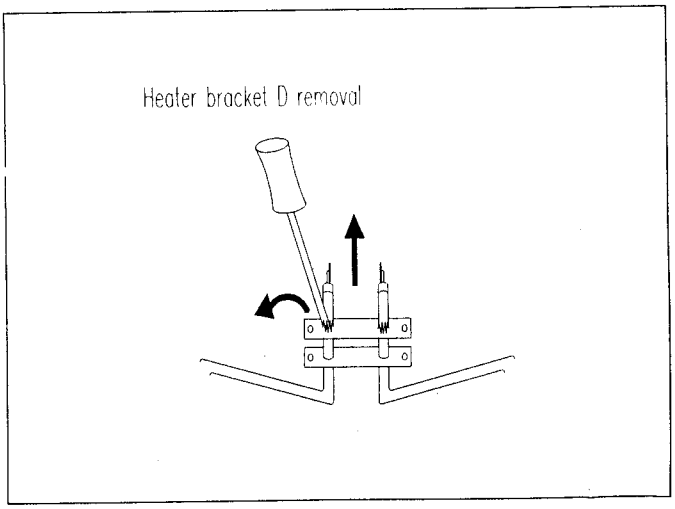


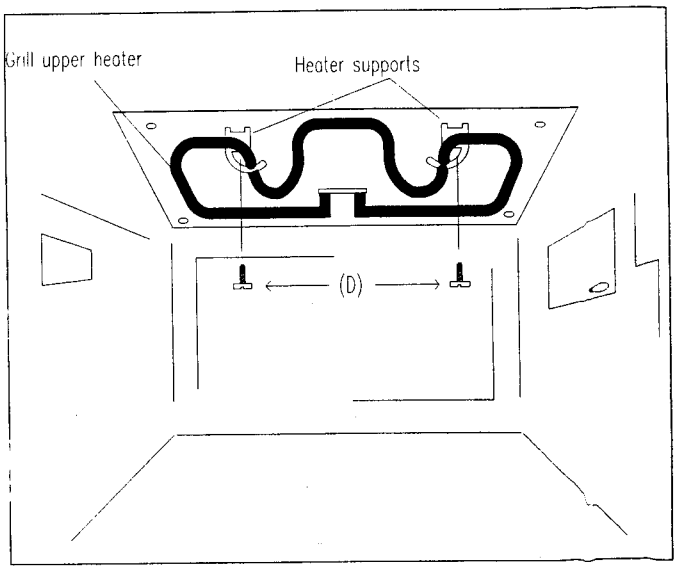


7. Grill element

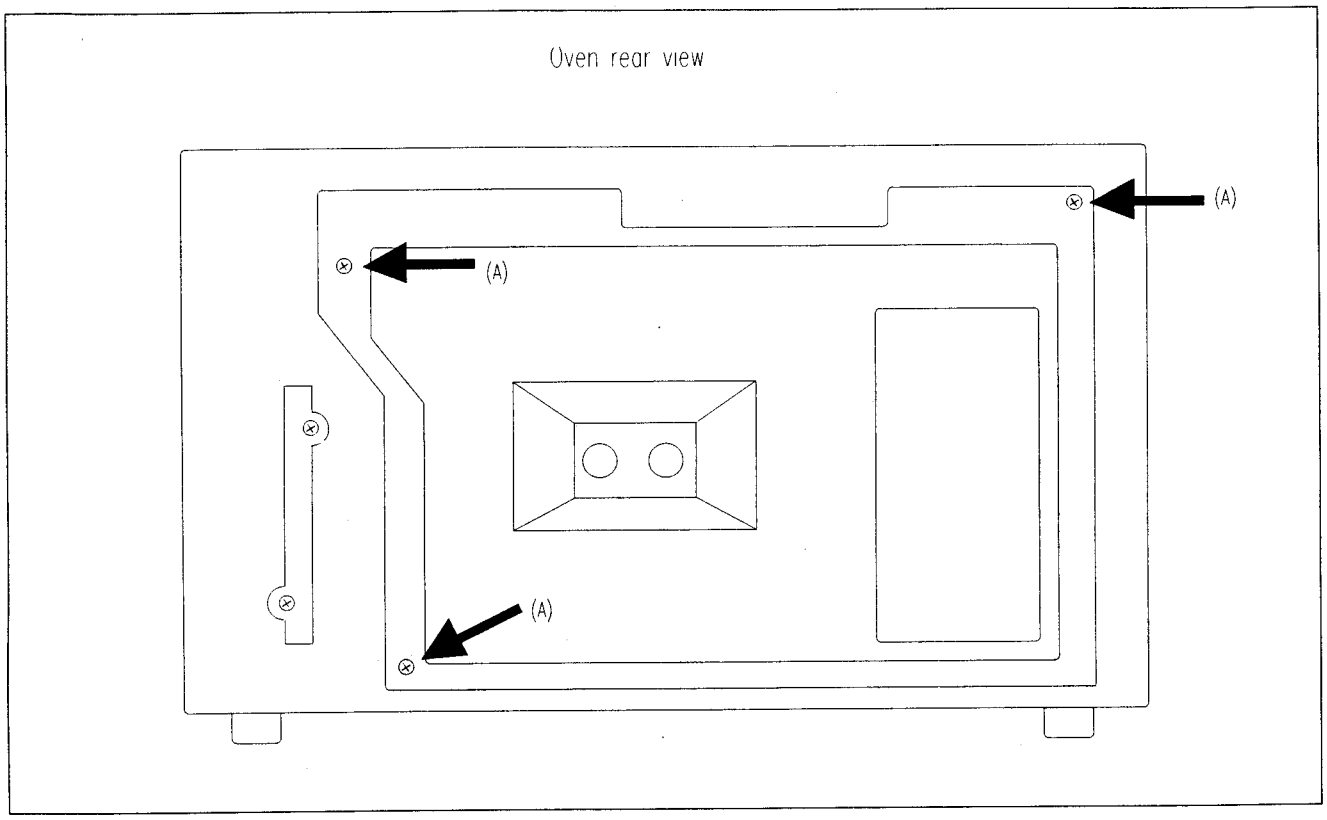


(1) Remove the sensor cable from the DPC connector CN6
(2) Remove the exhaust guide A by removing the 2 screws (A)
(3) Dissconnect the cables to the grill heater
(4) Remove the grill cover by removing the 5 screws (B)
(5) Remove the 2 screws (C) holding the grill heater
(6) Loosen the 2 screws (D) holding the ceramic grill holders, turn the holders to release the grill element.
(7) Remove the heater bracket D using a flat blade screw driver to lever back the tabs
(8) The grill element can now be removed from inside the oven.

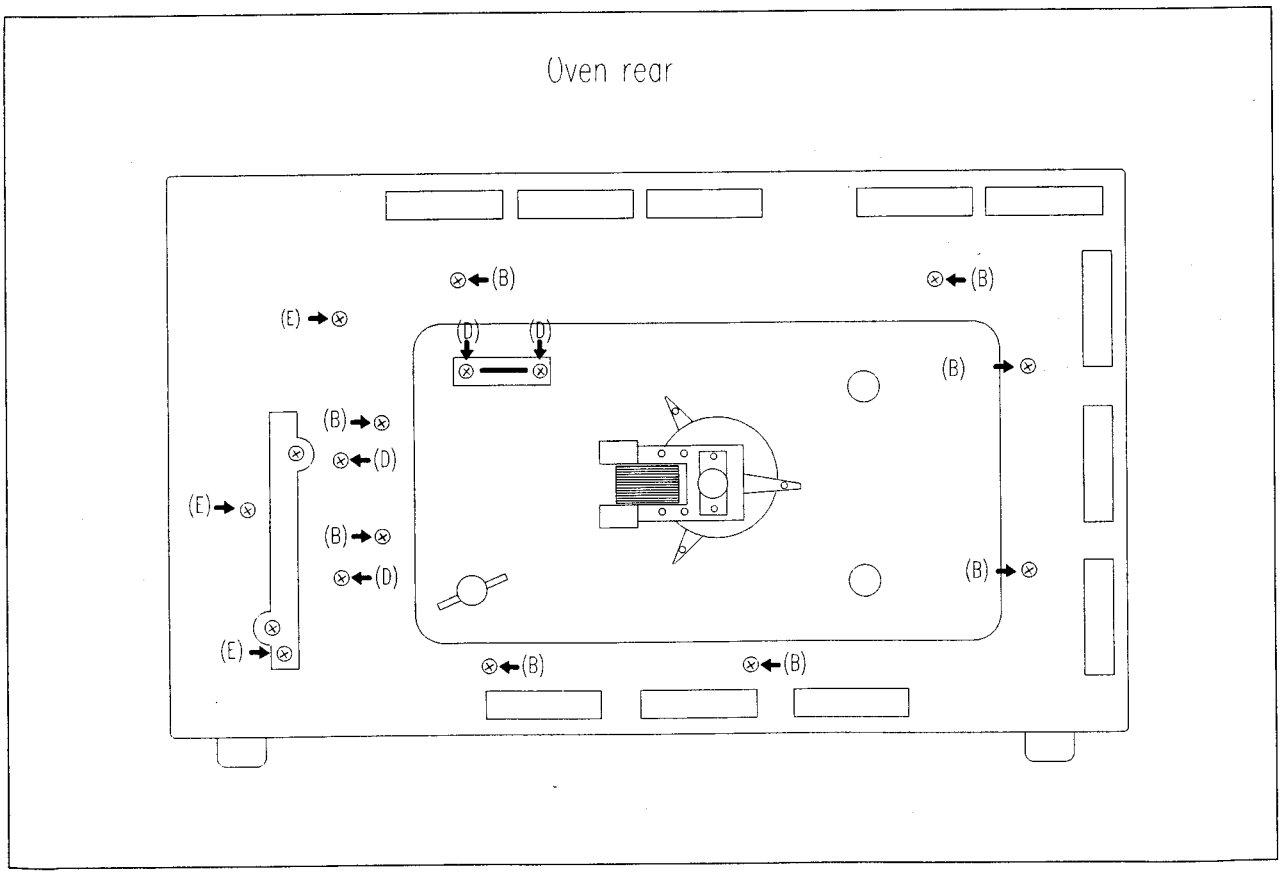




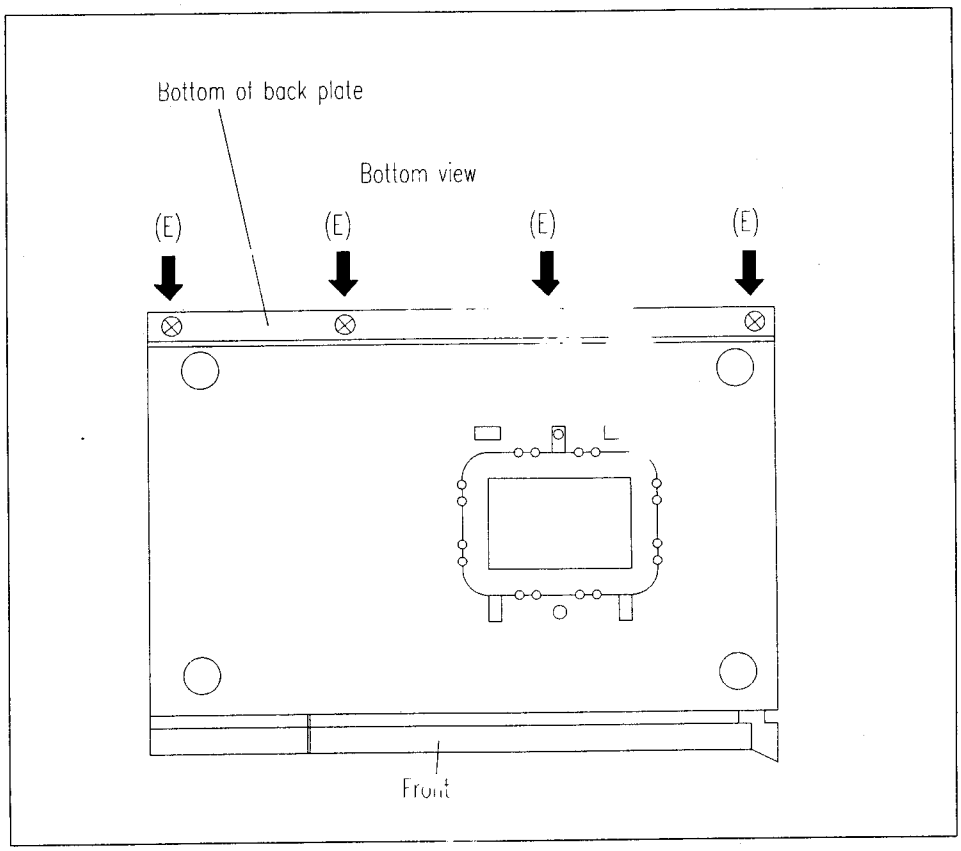
8. Convection element and convection fan



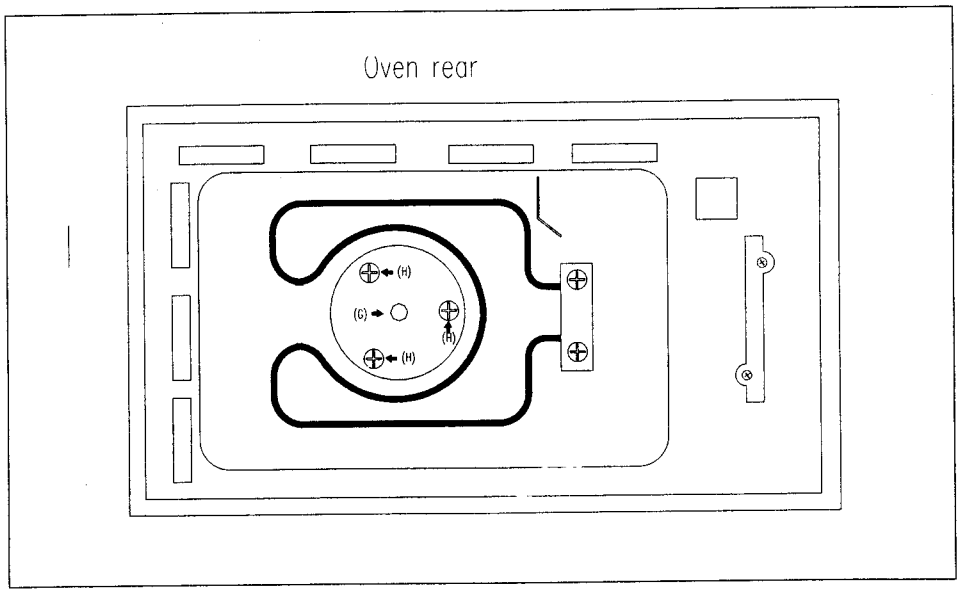
(1) Remove the rear heater cover by removing the 3 screws (A)



(2) Remove the 8 screws (B) from the back plate
(3) Disconnect the wiring to the thermal cutout
(4) Remove the thermistor by removing the 2 screws (C)
(5) Remove the 5 screws (D) holding the orifice
(6) Disconnect the power cord from the noise filter, unscrew the earth wire from the chasis
(7) Disconnect the wires to the fan motor
(8) Disconnect all wires from the noise filter, unscrew the earth from the chasis
(9) Disconnect the stact diode from the chasis



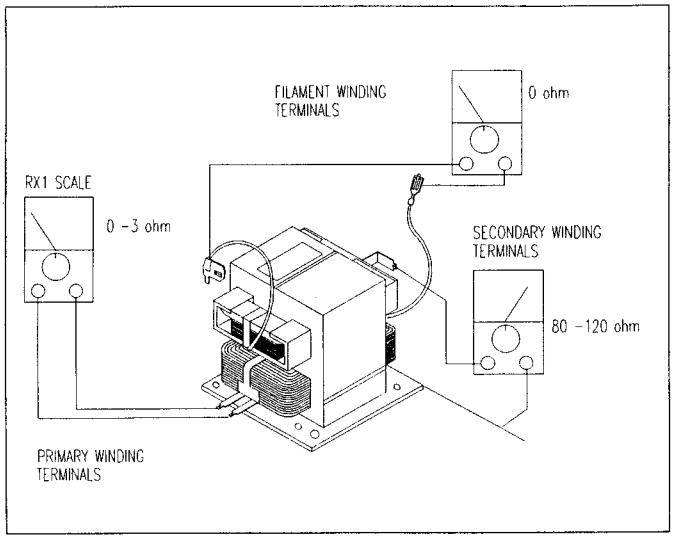
(10) Ensure the oven is clear of accessories, turn over and remove the 4 screws (E) from the Base.
(11) Carefully place the oven back onto the base and remove the back plate.



(11) Remove the bolt (G) to remove the circulation fan
(12) Remove the 3 screws (H) to remove the fan motor

COMPONENT TEST PROCEDURE

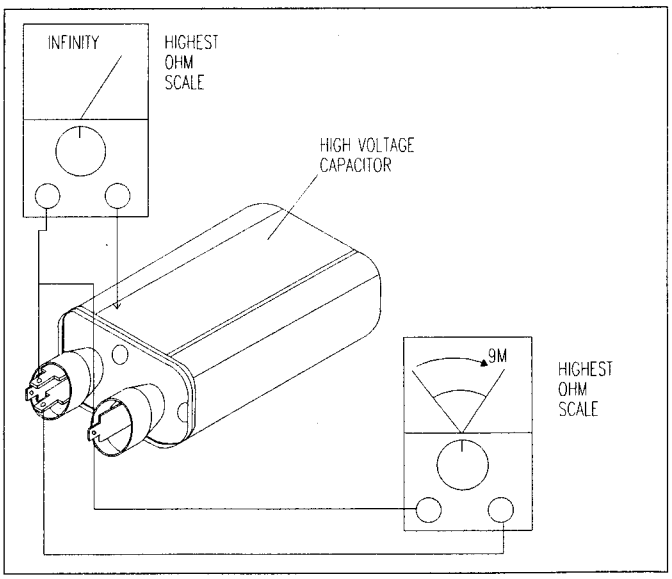
High voltage is present at the high voltage terminal of the high voltage transformer during operation. It is neither necessary or advisable to attempt measurement of this high voltage. Before touching any oven components or wiring, always unplug the oven from its power source and discharge the high voltage capacitor.



1. High voltage transformer

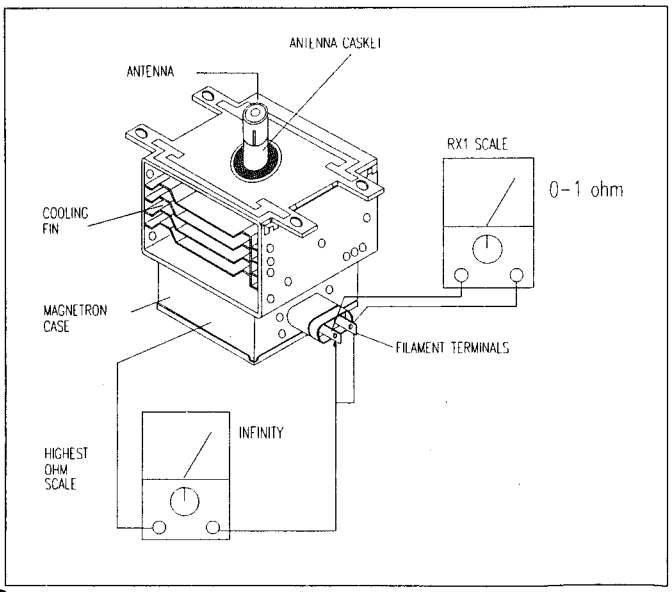
(A) Remove the connections from the transformer terminals and check the cold winding resistance.

Secondary winding	Approx 80-120 ohm
Filament winding	Approx 0 ohm
Primary winding	Approx 0-3 ohm



2. High voltage capacitor

(A) Check the continuity of the capacitor with the meter on the highest ohm scale.
(B) A normal capacitor will show continuity for a short time and then indicate 9 M ohm once the capacitor is charged.
(C) A shorted capacitor will show continuous continuity.
(D) An open capacitor will show a constant 9 M ohm
(E) Resistance between each terminal and the case should read infinity.



3. Magnetron

(A) Continuity checks on the magnetron can only indicate an open filament or shorted magnetron.
(B) Disconnect leads to the magnetron.
(C) A continuity check between each filament should read one ohm or less.
(D) A continuity check between each filament and the magnetron case should read infinity.

4. Membrane key board (membrane switch assembly)

Check the continuity of the membrane key pads. Connect a meter or continuity tester to the appropriate tracks on the membrane ribbon cable, press the coresponding keypad on the escutcheon sheet.

The membrane key pad drawing can be found on the digital programmer schematic at the back of this manual.

5. Oven temperature thermistor

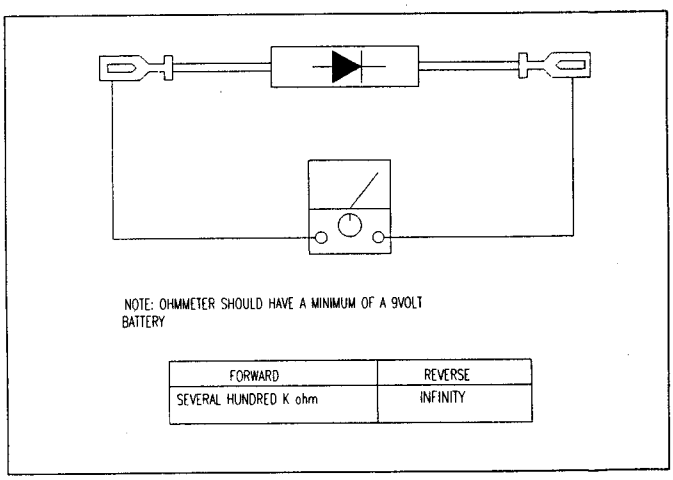
The resistance reading across the thermistor should read 300K ohm to 1500K ohm within a temperature range of 10 to 30 degrees centigrade. This would be the temperature range within a kitchen environment. If the resistance measured is outside this range the thermistor is defective and should be replaced.

NOTE: When measuring the resistance of the thermistor disconnect the 4 pin connector from the digital programmer circuit.

NOTE: If the microwave oven as been operated allow to cool to room temperature before attempting to measure the thermistor resistance.

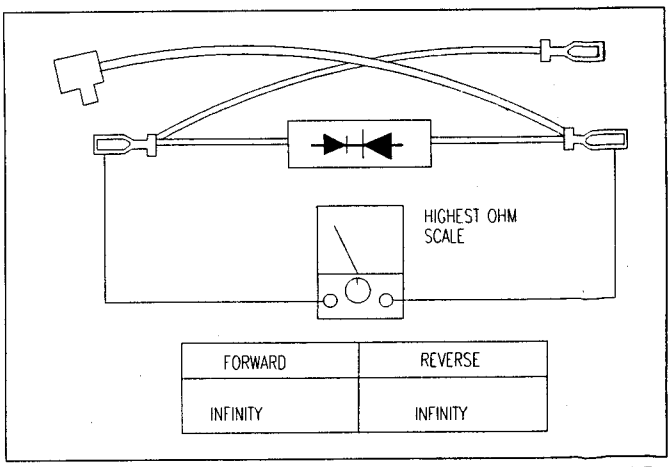
6. Diode

(A) Disconnect all leads from the diode.
(B) Set the meter to the highest ohm scale
(C) Measure the resistance between the diode terminals in both directions.
(D) A normal diodes resistance will be infinite in one direction and several hundred K ohms in the other direction.
(E) The meter must be operated by a 9 volt battery or greater.



7. Protector diode

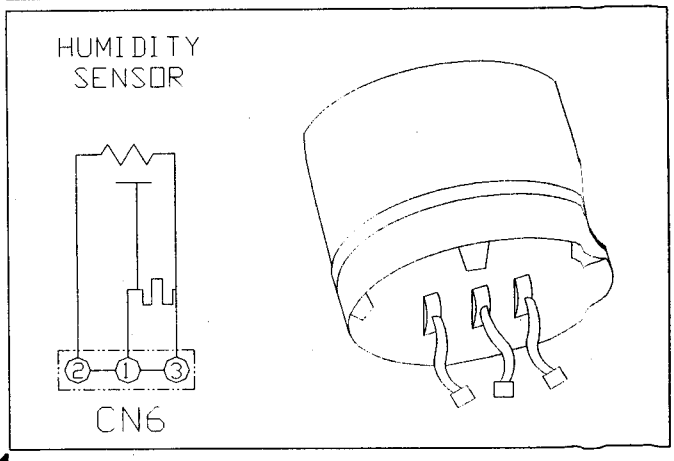
(A) Disconnect all leads from the protector diode.
(B) Set the meter to its highest ohm scale.
(C) Measure the resistance between the diode terminals in both directions.
(D) A normal protector diode will should infinite resistance in both directions.
(E) Any resistance reading indicates a faulty protector diode.
(F) The meter must be operated by a 9 volt battery or greater.



8. Humidity sensor and digital programmer circuit.

NN-C897WB NN-C897CB

(A) Check the resistance across the sensor heater terminals. Normal cold resistance should read approximately 4.5 ohms
(B) Check the voltage across the sensor heater terminals. It should read approximately 2.5 VDC
(C) In order to determine if the auto cooking by humidity sensor is working or not, perform the following test.
(1) Place a water load (150 cc) in the oven
(2) Press auto reheat panel
(3) Press start pad
(4) The humidity sensor detects steam about 2 to 4 minutes after the start pad has been pressed.
(5) Auto cooking (T1) automatically switches to time cooking. (T2).
(6) The remaining cooking time T2 appears in the display window. if 48 - 1.36 appears in the display , The humidity sensor function is normal.



Fuse is blown

	SYMPTOM		CAUSE	CORRECTIONS
1.	10A fuse is blown	1.	Shorted lead wire harness	
		2.	Defective primary latch switch and short switch	Check adjustment of latch switches and door
		3.	Shorted H.V.Capacitor	
		4.	Shorted H.V.Diode	Replace H.V.Diode and protector Diode NOTE*
		5.	Defective magnetron	Replace magnetron and protector diode NOTE*
		6.	Shorted H.V. Transformer	Replace H.V. Transformer and protector diode NOTE*
		7.	Shorted protector diode	
		9.	Defective DPC	Refer to DPC troubleshooting guide
2.	13 A plug fuse is blown	1.	Shorted lead wire harness	
		2.	Shorted Grill (top) heater	
		3.	Shorted Conv (back) heater	
			NOTE: When changing any high voltage component you must also change the protector diode.	

Other problems

	SYMPTOM		CAUSE	CORRECTIONS
1.	Microwave output is low.	1.	Decrease in power source voltage	Check mains supply
		2.	Open or loose wiring of magnetron filament circuit. (Intermittant oscillation)	
		3.	Ageing of magnetron	
2.	Oven lamp and turntable motor operates when the door is open	1.	Shorted secondary latch switch	
		2.	Defective RY2	
		3.	Defective DPC	
3.	Loud buzzing noise	1.	Loose fan or fan motor	
		2.	Loose screws on H.V. Transformer	
		3.	Defective H.V. Transformer	
4.	Oven stops operation during cooking	1.	Missalignment of latch switches	Adjust door and latch switches
		2.	Open or loose wiring of primary and secondary latch switch	
		3.	Operation of thermal cutout (magnetron) (oven)	
5.	Oven returns to plugged in mode 18 seconds after start pad is pressed	1.	Open or loose wiring of shutter motor or shutter switch	
		2.	Open shutter switch	
		3.	Defective shutter motor	
		4.	Defective DPC	
6.	Oven returns to plugged in mode 6 second after start pad is pressed (Except microwave cooking mode)	1.	Shorted shutter switch	
		2.	Defective DPC	
7.	Oven returns to plugged in mode 1 minute after start pad is pressed	1.	Open or loose wiring of oven temperature sensor	
		2.	Defective oven temperature sensor	
		3.	Defective DPC	

DIGITAL PROGRAMMER TROUBLESHOOTING GUIDE

SYMPTOM	STEP	CHECK	RESULT	CAUSE/CORRECTION
No display when the oven is first plugged in.	1	Fuse patern on the power	Normal	STEP 2
			Open (see below for repair of pattern)	Short circuit of ZNR, LVT lamp, main IC,s replace DPC
	2	Low voltage transformer secondary voltage via conector CN100	Abnormal 0V	Low voltage transformer
			Normal	Step 3
	3	+ 5 volt test rail (emitter of Q1)	Abnormal	ZD1,Q1
			Normal +5V	Step 4
	4	IC9 pin 14 voltage	Abnormal	IC2
			Normal	IC1,CX1,DISPLAY

Procedure for repairing the fuse pattern is as follows:

1) When fuse pattern (A) PF1 opens:

a) Replace the DPC

2) When fuse pattern (B) PF2 opens

a) Renove jumper wirefrom PF2 position

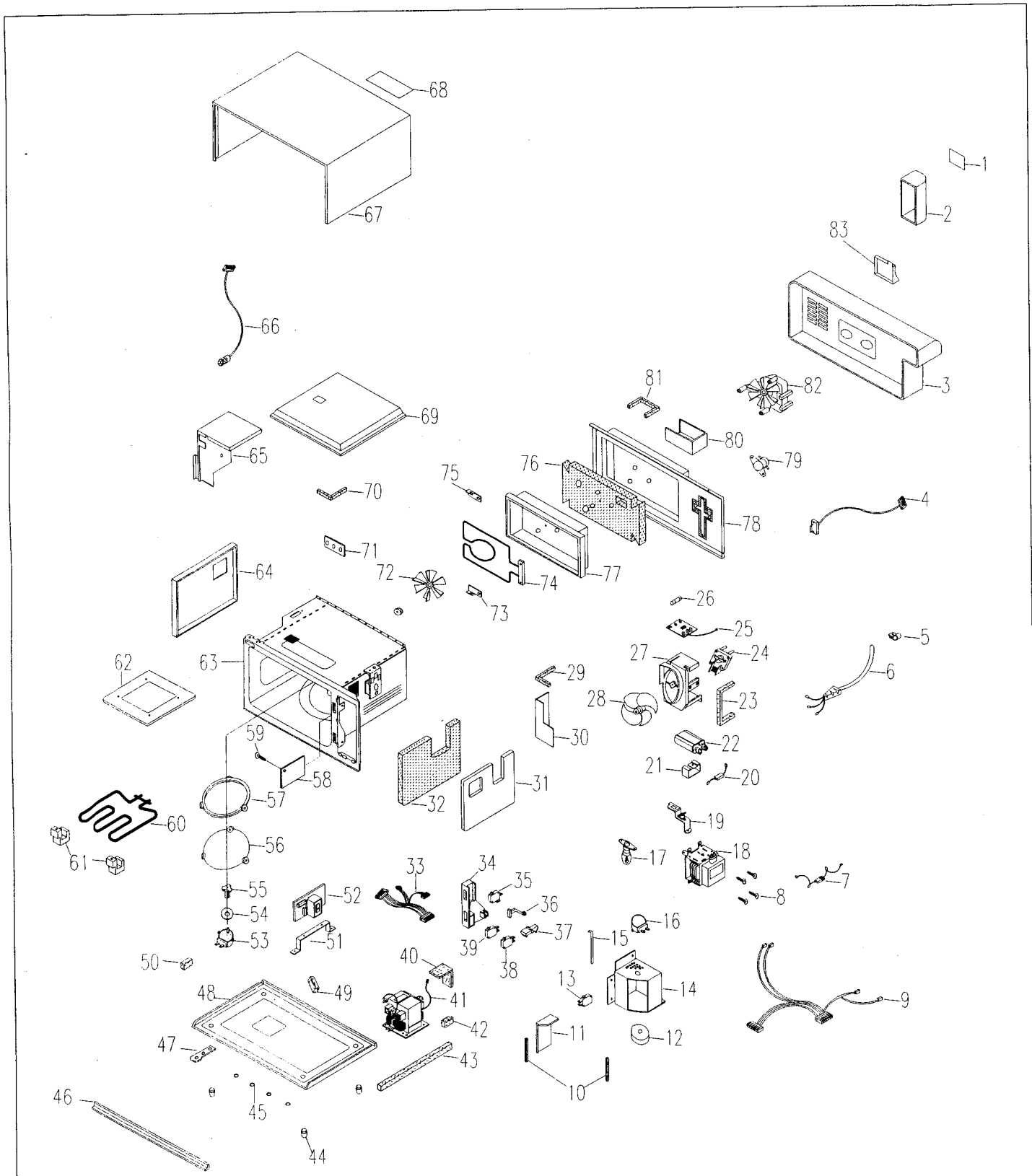
b) Insert the jumper wire in PF3 postion

c) If both PF2 and PF3 fuse patterns are open please replace the DPC

NOTE: At the time of repairs , make a visual inspection of the varistors for burning and also the test the low voltage transformer for layer short circuit. (Check the primary coil resistance) If any abnormal condition is found replace the defective component parts.

No Key input	1	Membrane switch continuity	Abnormal	Membrane switch
			Normal	IC1
Power relay RY2 (lamp and turntable motor) does not turn on after program is set and start button is pressed	1	IC9 pin 13 voltage during operation	Abnormal	IC1
			Normal (5V)	Step 2
	2	Create short circuit between IC9 pin 1 and pin 12	RY2 does not turn on	RY2
			RY2 turns on	IC9
No microwave oscillation	1	IC9 pin 9 during high power operation	Abnormal	IC1
			Normal 5V	Step 2
	2	IC9 pin 4 voltage low level	Abnormal	IC9
			Normal	Step 3
	3	Create short circuit between IC3 pin 16 and IC3 pin 8	RY1 switches on	IC3,IC1
			RY1 does not switch on	RY1
No grill operation	1	IC9 pin 9 during high power operation	Abnormal	IC1
			Normal 5V	Step 2
	2	IC9 pin 4 voltage low level	Abnormal	IC9
			Normal	Step 3
	3	Create short circuit between IC3 pin 15 and IC3 pin 8	RY4 switches on	IC3,IC1
			RY4 does not switch on	RY4
No fan motor operation	1	Create short circuit between IC3 pin 12 and IC 3 pin 8	RY5 switches on	IC3,IC1
			RY5 does not switch on	RY5
Dark or unclear display	1	Replace display and check operation	Normal	Display
			Abnormal	IC1
Unlit segments of display	1	Replace IC and check operation	Normal	IC1
			Abnormal	Display
No convection operation	1	IC9 pin 9 during high power operation	Abnormal	IC1
			Normal 5V	Step 2
	2	IC9 pin 4 voltage low level	Abnormal	IC9
			Normal	Step 3
	3	Create short circuit between IC3 pin 14 and IC3 pin 8	RY7 switches on	IC3,IC1
			RY7 does not switch on	RY7

EXPLODED VIEW



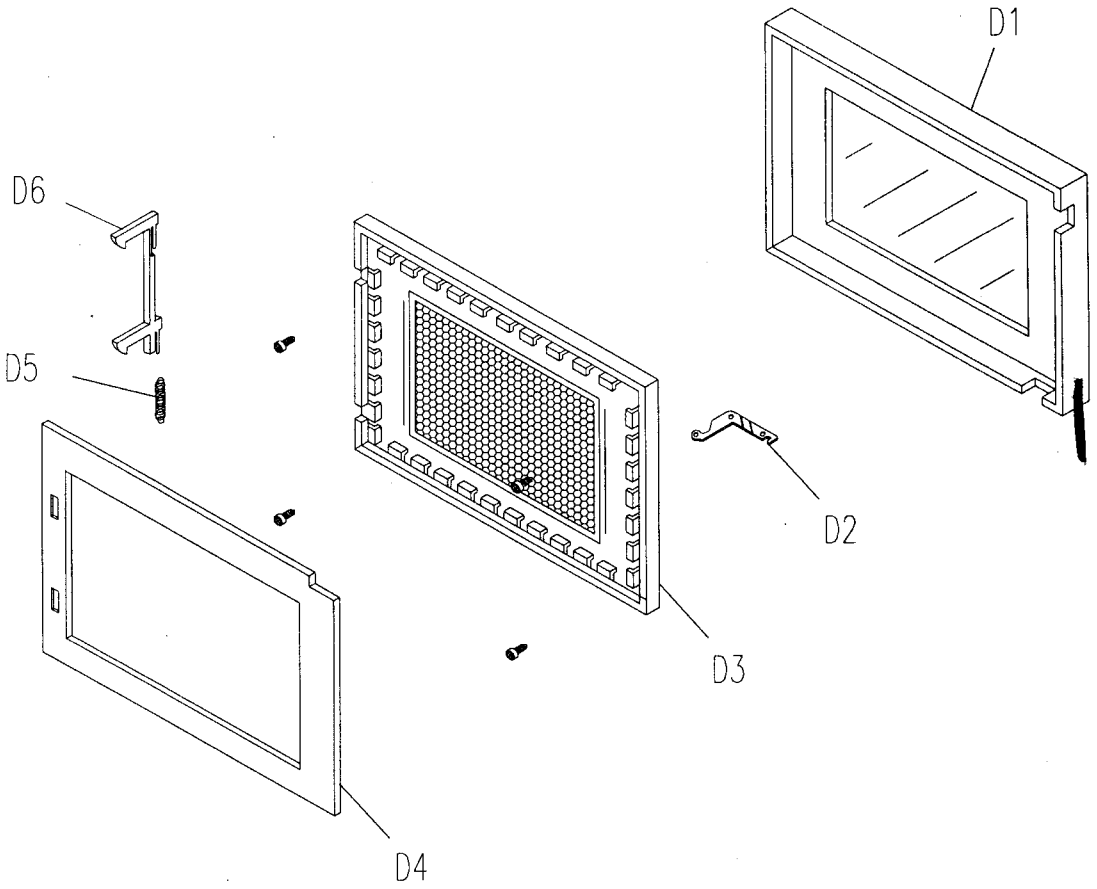
PARTS LIST

NOTE: Part numbers are indicated on most mechanical parts. Please use these part numbers for part orders.
Components identified by ! have special characteristics important for safety.
When ordering these components, use only manufacturers supplied parts.
All parts are supplied by MELUK unless otherwise specified

REF.NO.		PART NUMBER	PART DESCRIPTION	QTY	REMARKS
1	!	E00064080BP	WARNING LABEL	1	
2		E41199000BP	EXHAUST GUIDE D	1	
3		E10589000BP	BACK PANEL COVER	1	
4	!	E605Y060WBQ0	THERMISTOR UNIT	1	
5		AEE9108A20GN	CABLE HOLDER	1	
6		E900C6520BP	POWER SUPPLY CORD	1	
7		E606V4760JP	PROTECTOR DIODE	1	
8	!	XTWANE4 + 10RU	SCREWS	4	FOR MAGNETRON
9	!	E030A9000BP	LEAD WIREHARNESS	1	NN-C897WB NN-C897CB
9	!	E030A9010BP	LEAD WIREHARNESS	1	NN-C877WB NN-C877CB
10		E09620000AH	CUSHION RUBBER	2	
11		E41739000BP	SHUTTER FLAP	1	
12		E48236750BP	CAM	1	
13	!	E61425180AP	MICROSWITCH	1	
14		E40CE9000BP	AIRGUIDE A	1	
15		E4174C000BP	SHTTER PIN	1	
16	!	E6326470JP	SHUTTER MOTOR	1	
17	!	E610T6700BP	OVEN LAMP	1	
18	!	2M210-M1E	MAGNETRON	1	
19	!	E610U9000BP	THERMAL CUTOUT ASSY	1	
20		E62024000AP	STACT DIODE	1	
21		E60374760GP	CAPACITOR HOLDER	1	
22	!	E60904080GP	H.V.CAPACITOR	1	
23		E09220000AR	CUSHION RUBBER	1	
24		E400A4760JP	FAN MOTOR UNIT	1	
25		E692Y6700BP	NOISE FILTER	1	
26	!	E67597550GP	CERAMIC FUSE 10A	1	
27		E41448000GP	ORIFICE	1	
28		E40086430GP	FAN BLADE	1	
29		E09220000AK	CUSHION RUBBER	1	
30		E40309000BP	AIRGUIDE D	1	
31		E22369000BP	RIGHT HEATER PANEL	1	
32		E22439000BP	ADIABIATIC MATERIAL A	1	
33		E030F9000BP	LEAD WIREHARNESS	1	NN-C897WB NN-C897CB
34		E30208000BP	DOOR HOOK	1	
35	!	AEE6142-F61	MICROSWITCH	1	(V-15G-3C26) PRIMARY
36		E31384830AP	HOOK SPACER C	1	
37		E31374830AP	HOOK SPACER B	1	
38	!	E61425180AP	MICROSWITCH	1	(L-3C2-2) SECONDARY
39	!	E61785180AP	MICROSWITCH	1	(L-3C2-2) SHORT
40		E09020000ED	CUSHION RUBBER	1	
41	!	E621B7550GP	HV TRANSFORMER	1	
42		E091N0000BE	CUSHION RUBBER	1	
43		E09020000AL	CUSHION RUBBER	1	
44		ANE1008-5S1	RUBBER FOOT	4	
45		E11088020BP	FIBRE WASHER	1	
46		E16079000BP	DRIP TRAY	1	
47		E30076700AP	LOWER HINGE	1	
48		E10019000BP	BASE PLATE	1	
49		E09270000BH	CUSHION RUBBER	1	
50		E09020000ED	CUSHION RUBBER	1	
51		E10729000BP	TRANSFORMER BRACKET	1	NN-C897WB NN-C897CB
52	!	E603Y9000BP	POWER SUPPLY BOARD	1	NN-C897WB NN-C897CB
53	!	E63264760JP	TURNTABLE MOTOR	1	
54		AEE2177-F80	PULLEY SHAFT WASHER	1	
55		E21315870GP	PULLEY SHAFT	1	
56		E202K6700GP	ROLLER RING BEADS	1	REPLACE 3 BEADS TOGETHER
57		E290D6700BP	ROLLER RING	1	
58		E20559000BP	COVER A	1	
59		XSN4 + 6ZS	SCREW	1	FOR COVER A
60	!	E630G9000BP	GRILL HEATER	1	

REF.NO.		PART NUMBER	PART DESCRIPTION	QTY	REMARKS
61		ANE6418Z70BP	HEATER SUPPORTS	1	
62		E21449000BP	SELF CLEANING PANEL	1	
63	!	E200A9000BP	OVEN CAVITY	1	
64		E22379000BP	LEFT HEATER PANEL	1	
65		E40249000BP	EXHAUST GUIDE A	1	
66	!	E030H9000BP	HUMIDITY SENSOR WITH CABLE	1	NN-C897WB NN-C897CB
67	!	E110D9000HBP	OUTER PANEL WHITE	1	NN-C897WB NN-C877WB
67	!	E110D9000BP	OUTER PANEL BROWN	1	NN-C897CB NN-C877CB
68	!	E01057550BP	WARNING LABEL	1	
69		E202N9000BP	UPPER HEATER COVER	1	
70		E22589000BP	CUSHION RUBBER	1	
71		E67579000BP	HEATER BRACKET D	1	
72		E2239000BP	CIRCULATION FAN	1	
73		E64189000BP	BOTTOM HEATER SUPPORT	1	
74		E630H9000BP	HEATER B UNIT	1	
75		E64179000BP	TOP HEATER SUPPORT	1	
76	!	E22429000BP	ADIABATIC MATERIAL B	1	
77		E607F9000BP	INNER HEATER COVER	1	
78		E20339000BP	HEATER COVER B	1	
79	!	E61458020BP	THERMAL CUTOUT	1	
80		E41079000BP	EXHAUST GUIDE B	1	
81		E09230000AQ	CUSHION RUBBER	1	
82	!	E490S8020GP	CONVECTION MOTOR	1	
83	!	E10619000BP	WATER SHIELD	1	

DOOR ASSEMBLY



NOTE: When ordering any door components please order DOOR C at the same time, as this may become damaged during repair.

REF NO		PART NUMBER	PART DESCRIPTION	QTY	REMARKS
D1		E302A9000HBP	DOOR A ASSEMBLY	1	NN-C897WB
D1		E302A9000BP	DOOR A ASSEMBLY	1	NN-C897CB
D1		E302A9010HBP	DOOR A ASSEMBLY	1	NN-C877WB
D1		E302A9010BP	DOOR A ASSEMBLY	1	NN-C877CB
D2		E30067300AP	UPPER HINGE	1	
D3		E302K6750BP	DOOR E	1	
D4		E30859000BP	DOOR C	1	SEE NOTE:
D5		E30214000AP	DOOR KEY SPRING	1	
D6	!	E30188000BP	DOOR KEY A	1	

DIGITAL PROGRAMMER CIRCUIT

PARTS LIST FOR NN-C897WB NN-C897CB

REF. NO.	PART NUMBER	DESCRIPTION	QTY	REMARKS
CN9	AEEMMDFFF12W	CONNECTOR	1	12 PIN CONNECTOR
CN10	AEEMMD00D04W	CONNECTOR	1	4 PIN CONNECTOR
CN2	AEEMMD01D05W	CONNECTOR	1	5 PIN CONNECTOR
CN6	AEEMMD00703W	CONNECTOR	1	3 PIN CONNECTOR
CN7	AEEM09FDZBTM	CONNECTOR	1	9 PIN CONNECTOR
BZ1	AEFB22EP2002	BUZZER	1	
RY1	AEG5J1EM12B	POWER RELAY	1	12V MICROPOWER
RY4,7	AEGG5G1A12	POWER RELAY	1	12V GRILL
IC8	AEICP25011HL	I.C.	1	
DISP1	SUN6SS33	FIP DISPLAY	1	
C10	ECA1HM120E	ELECTRIC CAPACITOR	1	1000 MICRO F/50V
CN3	ECNMPB-17	CONNECTOR	1	17 PIN CONNECTOR
Q1	A6244UE1625	HEAT SINK	1	
Q1	EXYN3+F8S6	SCREW	1	
Q1	2SD2012	POWER TRANSISTOR	1	
SP1	E82847010AP	DISPLAY HOLDER	1	
IC9	SN102977AN	L.S.I.	1	
IC1	AEIC38B57112	MICROCONTROLLER I.C.	1	
C18,25 26,27,28.	ECUV1H101KV	CERAMIC CHIP CAPACITOR	5	100pF 50V
C34,35,36 37,38,39, 40,41,42, 43,53.	ECUV1H103KBV	CERAMIC CHIP CAPACITOR	11	10nF 50V
C20,21,22, 30,31,44, 45, 46.	ECUV1H103ZF1	CERAMIC CHIP CAPACITOR	8	10nF 50V
C14,19,23,24,47.	ECUV104ZFX	CERAMIC CHIP CAPACITOR	5	0.01uF 50V
R21,35,40,57,59	ERJ3GSYJ102V	CHIP RESISTOR	5	1K 1/16W 5%
R18,20,36,41,55, 56,69,70,71,72, 73,74,75,76,77, 78,79,80,81,82, 83,90,94.	ERJ3GSYJ1O3V	CHIP RESISTOR	23	10K 1/16W 5%
R62,67.	ERJ3GSYJ104V	CHIP RESISTOR	2	100K 1/16W 5%
R60.	ERJ3GSY222V	CHIP RESISTOR	1	2.2K 1/16W 5%
R32.	ERJ3GSY472V	CHIP RESISTOR	1	4.7K 1/16 5%
R42,43,44 45,46,47, 48,49,50, 51.	ERJ3GSYJ683V	CHIP RESISTOR	10	68K 1/16W 5%
R84.	ERJ3GSY0R00V	CHIP RESISTOR	2	0 Ohm 1/16W
D19,31.	MA113-(TX)	CHIP SILICON DIODE	2	
D27,28,29,30.	MA122-(TX)	CHIP SILICON DIODE	4	
D25.	MA152-(TX)	CHIP SILICON DIODE	1	
I.C.4.	MN8591S-E	I.C.	1	
Q4,Q5	UN2111-(TX)	CHIP TRANSISTOR	2	PNP
Q6	UN221F-(TX)	CHIP TRANSISTOR	1	NPN
IC3.	UPA2004GR	I.C.	1	
D23,24.	1SS355TE-17	SILICON DIODE	2	
Q8.	2SB710AQRSTA	CHIP TRANSISTOR	1	PNP
Q2,10.	2SD602AQRSTA	TRANSISTOR	1	NPN
R34	ERJ3GSYJ914V	CARBON RESISTOR	1	
R56	ERJ3GSYJ103V	CHIP RESISTOR	1	10K 1/16W 5%
R57	ERJ3GSYJ102V	CHIP RESISTOR	1	1K 1/16W 5%

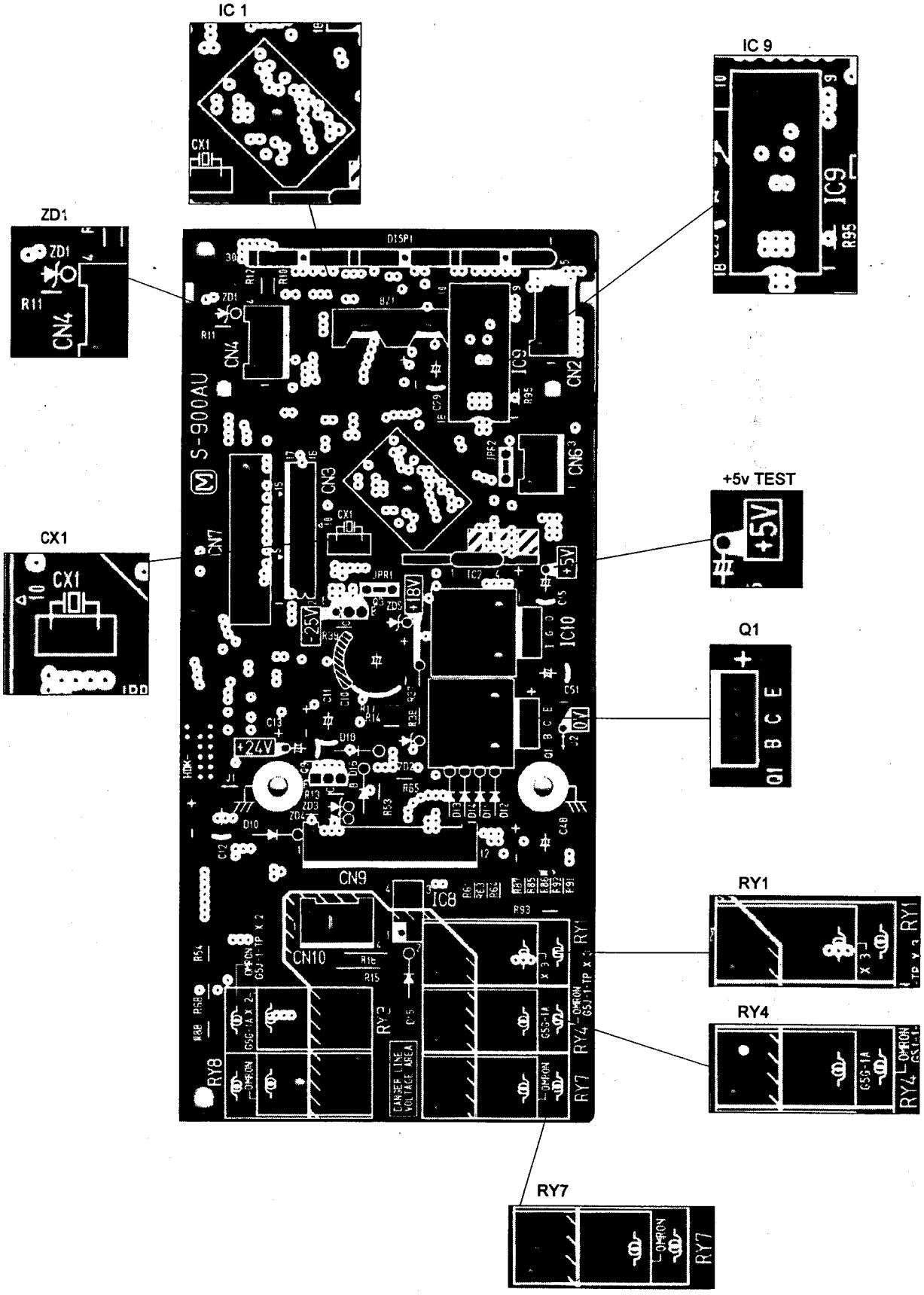
REF. NO.	PART NUMBER	DESCRIPTION	QTY	REMARKS
IC10	AEICU2405AHF	VOLTAGE REGULATOR	1	5V
IC10	A6244-1500	HEATSINK	1	
IC10	EXYN3+F856	SCREW	1	
CN4	AEEMMD00F04W	CONNECTOR	1	4 PIN CONNECTOR
C48	ECA1EM102E	AL ELEC CAPACITOR	1	100 uF 25V
C49,50	ECUV1E104KBX	CERMAC CHIP CAPACITOR	2	
C51	ECEA1CKA220B	AL ELEC CAPACITOR	1	22uF 16V
D10,11,12,13,14, 16,18.	AEDNERA1502	SILICON DIODE	7	
D26,27,28	MA113-(TX)	CHIP SILICON DIODE	3	
D34	AFSSRB751V40	DIODE	1	
JPR1	ERD25VJ683T	C/FILM RESISTOR	1	68K 1/4W
CX1.	AEFFT4R19GWT	CERAMIC RESONATOR	1	
C11.	ECA1HM101B	ELECTRIC CAPACITOR	1	1000uF 50V
C15,51.	ECEA1CKA220B	ELECTRIC CAPACITOR	2	22uF 16V
C29.	ECEA1HKAR47B	ELECTRIC CAPACITOR	1	0.47 uF 50V
C13.	ECEA1HA010B	ELECTRIC CAPACITOR	1	1 MICRO F/50V
C12.	ECEA1HA220B	ELECTRIC CAPACITOR	1	22uF 50V
R95	ERG1SJ222E	METAL FILM RESISTOR	1	2.2KB 1W 5%
Q3	2SA720PRTA	TRANSISTOR	1	PNP
Q9	2SC1318QSTA	TRANSISTOR	1	PNP
D10,16, 18.	AEDNERA1502	SILICON DIODE	3	
D15	AEDNERA1506	SILICON DIODE	1	
ZD3,D4	AEDZ13ES2T1	ZENER DIODE	2	13V
ZD5	AEDZ27ES3T1	ZENER DIODE	1	
ZD1,D2	AEDZ5R6ES2T1	ZENER DIODE	1	
R15,16	ERDS1TJ224T	RESISTOR	2	220K 1/2W 5%
R11,53	ERDS2TJI03T	RESISTOR	2	10K 1/4W 5%
R10,12,61,63, 64,65	ERDS2TJ151T	RESISTOR	6	150R 1/4W 5%
R13,37,38.	ERDS2TJ152T	RESISTOR	3	1.5K 1/4W 5%
R39	ERDS2TJ222T	RESISTOR	1	2.2K 1/4W 5%
R85,86,87 91,92,93.	ERDS2TJ80T	RESISTOR	6	68R 1/4W 5%
Q10	2SC2AQRSTA	TRANSISTOR	1	NPN
R14	ERG1SJ102E	METAL FILM RESISTOR	1	1K 1W
R23,24	ERJ3GSYJ105V	CARBON RESISTOR	2	
R25	ERJ3GSYJ514V	CARBON RESISTOR	1	
R26	ERJ3GSYJ754V	CARBON RESISTOR	1	
R27	ERJ3GSYJ364V	CARBON RESISTOR	1	
R28	ERJ3GSYJ184V	CARBON RESISTOR	1	
R29	ERJ3GSYJ913V	CARBON RESISTOR	1	
R30	ERJ3GSYJ473V	CARBON RESISTOR	1	
R31	ERJ3GSYJ223V	CARBON RESISTOR	1	
R32	ERJ3GSYJ113V	CARBON RESISTOR	1	
R63,64	ERDS2TJ151T	C/FILM RESISTOR	2	150R 1/4 5%
R69,70,71,72, 73,74,75,76.	ERJ3GSYJ103V	CHIP RESISTOR	8	
R89	ERJ3GSYJ681V	CHIP RESISTOR	1	680R 1/16 5%
R90	ERJ3GSYJ103V	CHIP RESISTOR	1	10K 1/16 5%
R22	ERJ3GSYJ205V	C/FILM RESISTOR	1	
R66	ERJ3GSYJ134V	C/FILM RESISTOR	1	
R84	ERJ3GSY0R00V	C/FILM RESISTOR	1	
R87,93	ERDS2TJ680T	C/FILM RESISTOR	2	68R 1/16 5%

DIGITAL PROGRAMMER CIRCUIT

PARTS LIST FOR NN-C877WB NN-C877CB

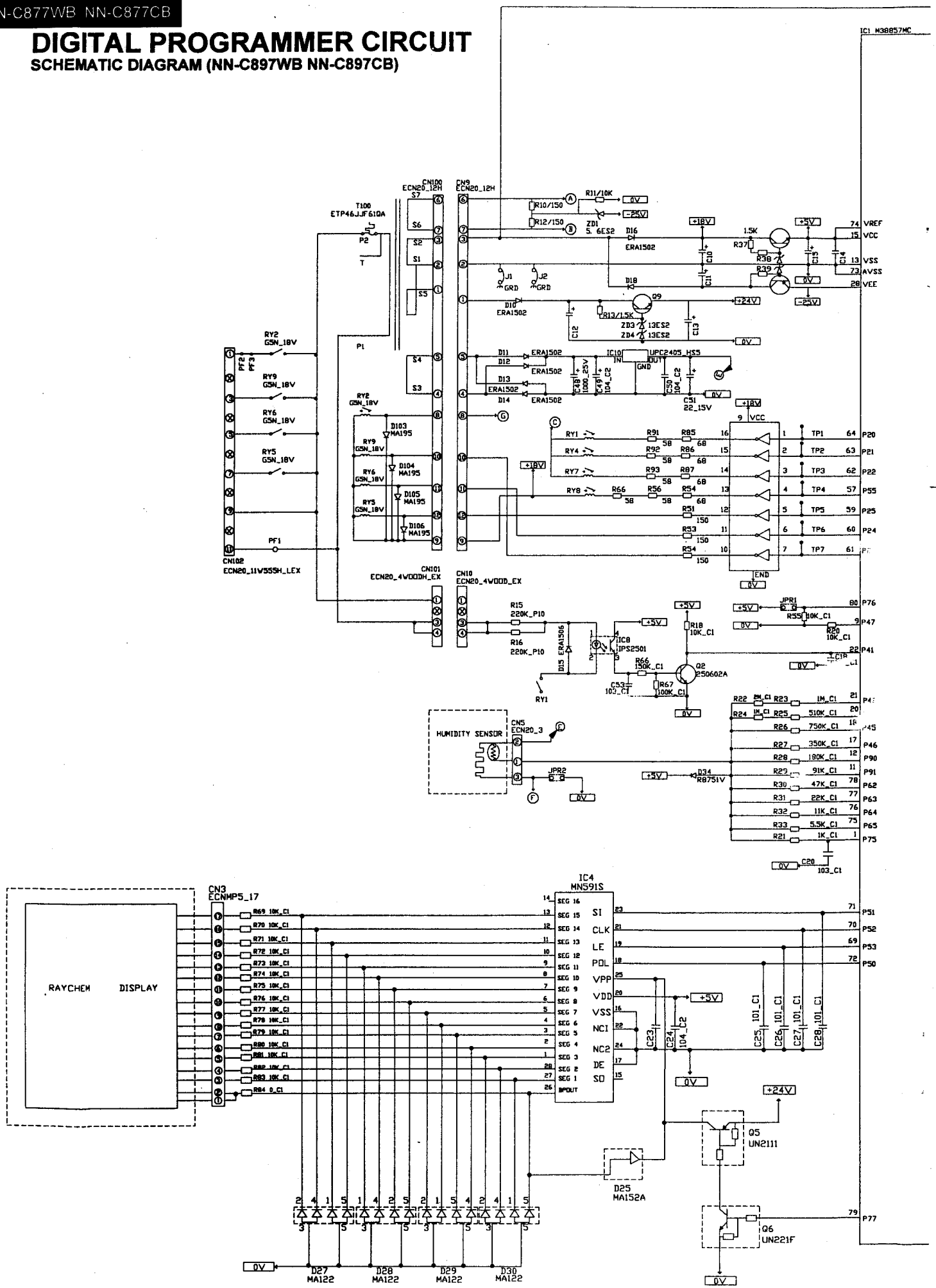
REF. NO.	PART NUMBER	DESCRIPTION	QTY	REMARKS
RY2,5,6,9	AEBGG5N1A18	POWER RELAY	4	
CN3	AEEMMD00F04W	CONNECTOR	1	4 PIN CONNECTOR
CN2	AEEMMD01D05W	CONNECTOR	1	5 PIN CONNECTOR
CN1	AEEMMD55511W	CONNECTOR	1	11 PIN CONNECTOR
CN4	AEEM09FDZBTM	CONNECTOR	1	9 PIN CONNECTOR
BZ	AEFB22EP2002	BUZZER	1	
H1	AEGHPH0124BS	HEAT SINK	1	
RY1,4,7	AEG5J1EM18B	POWER RELAY	3	
IC1	AEIC38121182	I.C.	1	
DISP1	SVM6SS33	FIP DISPLAY	1	
C10	ECA1HM102E	AL ELECTRIC CAPACITOR	1	100 MICRO F/50V
T1	E62498020BP	LOW VOLTAGE TRANSFORMER	1	
SP1	E82847010AP	DISPLAY HOLDER	1	
IC2	SN102977AN	I.C.	1	
CX1	AEFFT4R19GWT	CERAMIC RESONATOR	1	
C12	ECEA1CKA100B	AL ELECTRIC CAPACITOR	1	10 MICRO F/16V
C19	ECEA1HKA2R2B	AL ELECTRIC CAPACITOR	1	2.2 MICRO F/50V
C11	ECEA1HU101B	AL ELECTRIC CAPACITORAL	1	100 MICRO F
Q4	UN4123-(TA)	TRANSISTOR	1	
Q3	UN4211-(TA)	TRANSISTOR	1	
Q10,11,6 7,8,9	2SC4038TL2Q	TRANSISTOR	6	
C18,23	AECF50F104Z	CERAMIC CAPACITOR	2	
D10,11	AEDNERA1502	SILICON DIODE	2	
ZD1,2	AEDZ5R6ES2T	ZENER DIODE	2	
C13,14,15 17,20,21, 22	ECBT1E103ZF5	CERAMIC CAPACITOR	7	
R34	ERDS2TJ101T	RESISTOR	1	100R 1/4W 5%
R17,20,45 46,47,62	ERDS2TJ102T	RESISTOR	6	1K 1/4W 5%
R13,18,24 26,29,38, 39,40,41, 42,43	ERDS2TJ103T	RESISTOR	11	10K 1/4W 5%
R25,51,52, 53,54,55, 56,57,58, 59,60,61	ERDS2TJ104T	RESISTOR	12	100K 1/4W 5%
R11,12	ERDS2TJ151T	RESISTOR	2	150R 1/4W 5%
R16	ERDS2TJ181T	RESISTOR	1	180R 1/4W 5%
R27,35,36	ERDS2TJ221T	RESISTOR	3	220R 1/4W 5%
R15	ERDS2TJ330T	RESISTOR	1	33R 1/4W 5%
R14,23	ERDS2TJ332T	RESISTOR	2	3.3K Ohm 1/4 5%
R48,49,50	ERDS2TJ472T	RESISTOR	3	4.7K 1/4 5%
R10	ERDS2TJ7R5T	RESISTOR	1	7.5 Ohm 1/4w 5%
R31,32,33	ERDS2TJ820T	RESISTOR	3	82R 1/4W 5%
R19	ERDS2TJ914T	RESISTOR	1	
D12,14,15 16,17,18, 19,23,24, 26,27,28, 29,30	MA196-(TA5)	SILICONE DIODE	14	
Q1	2SD2012	POWER TRANSISTOR	1	

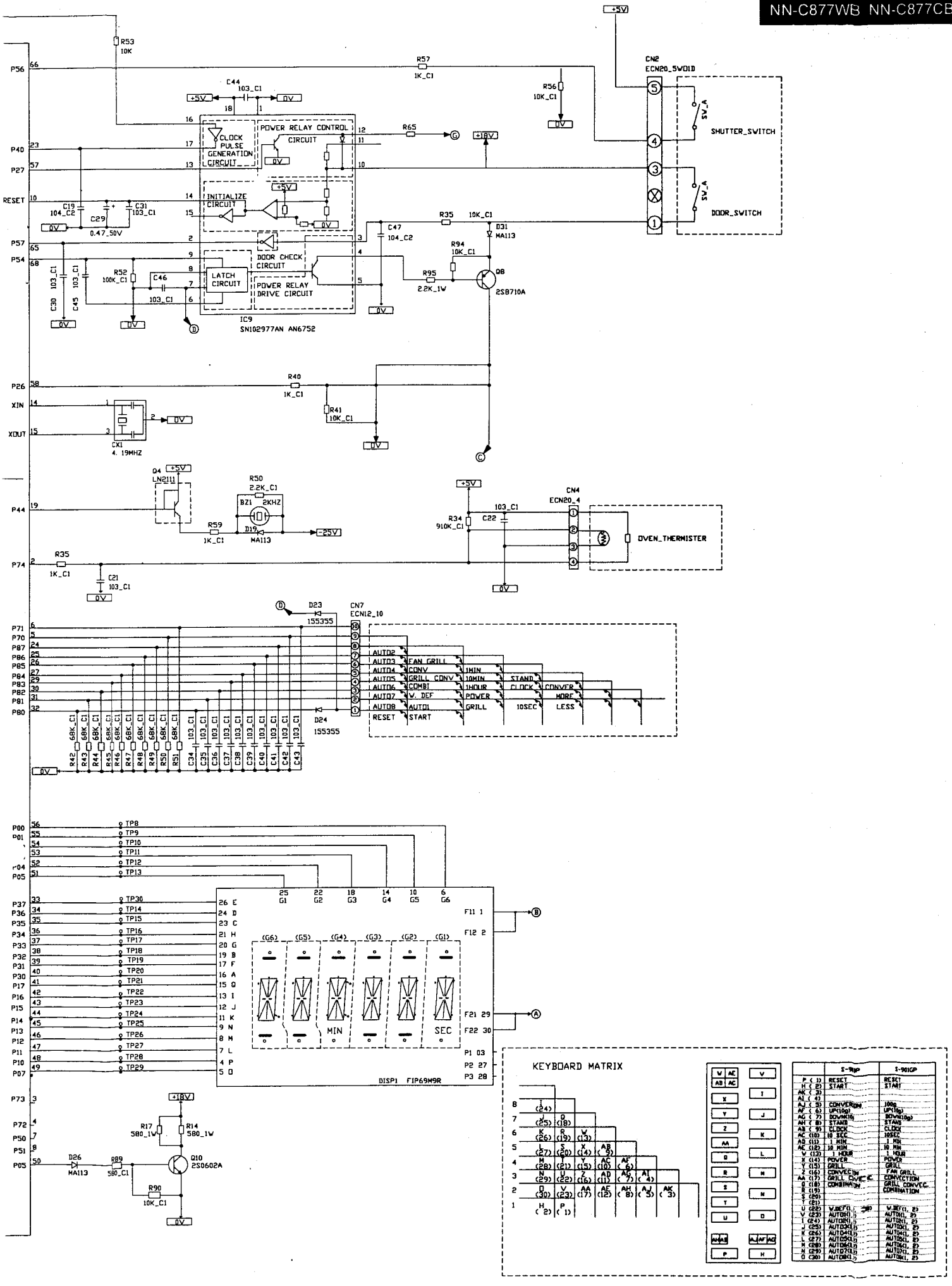
DIGITAL PROGRAMMER CIRCUIT



DIGITAL PROGRAMMER CIRCUIT

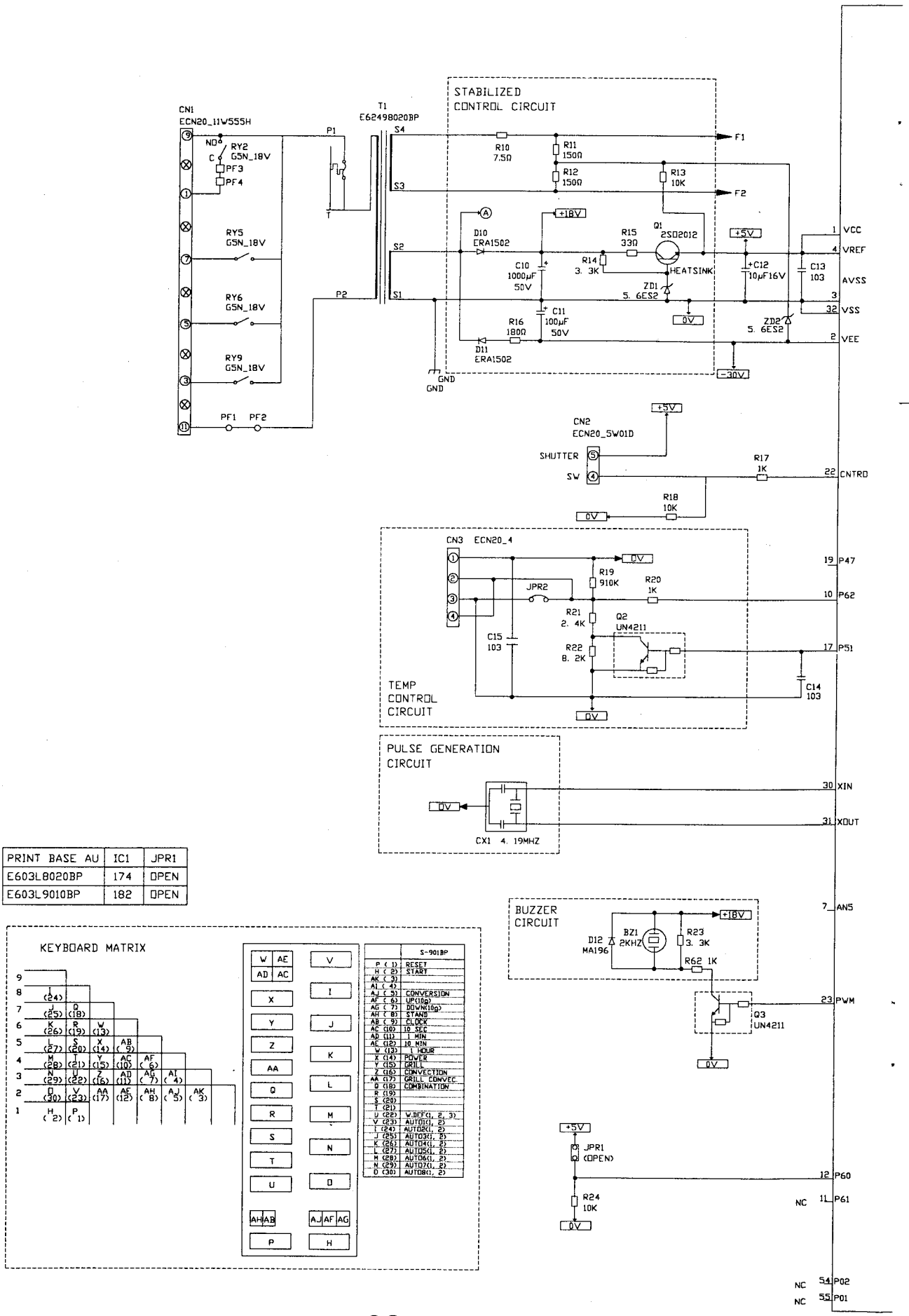
SCHEMATIC DIAGRAM (NN-C897WB NN-C897CB)



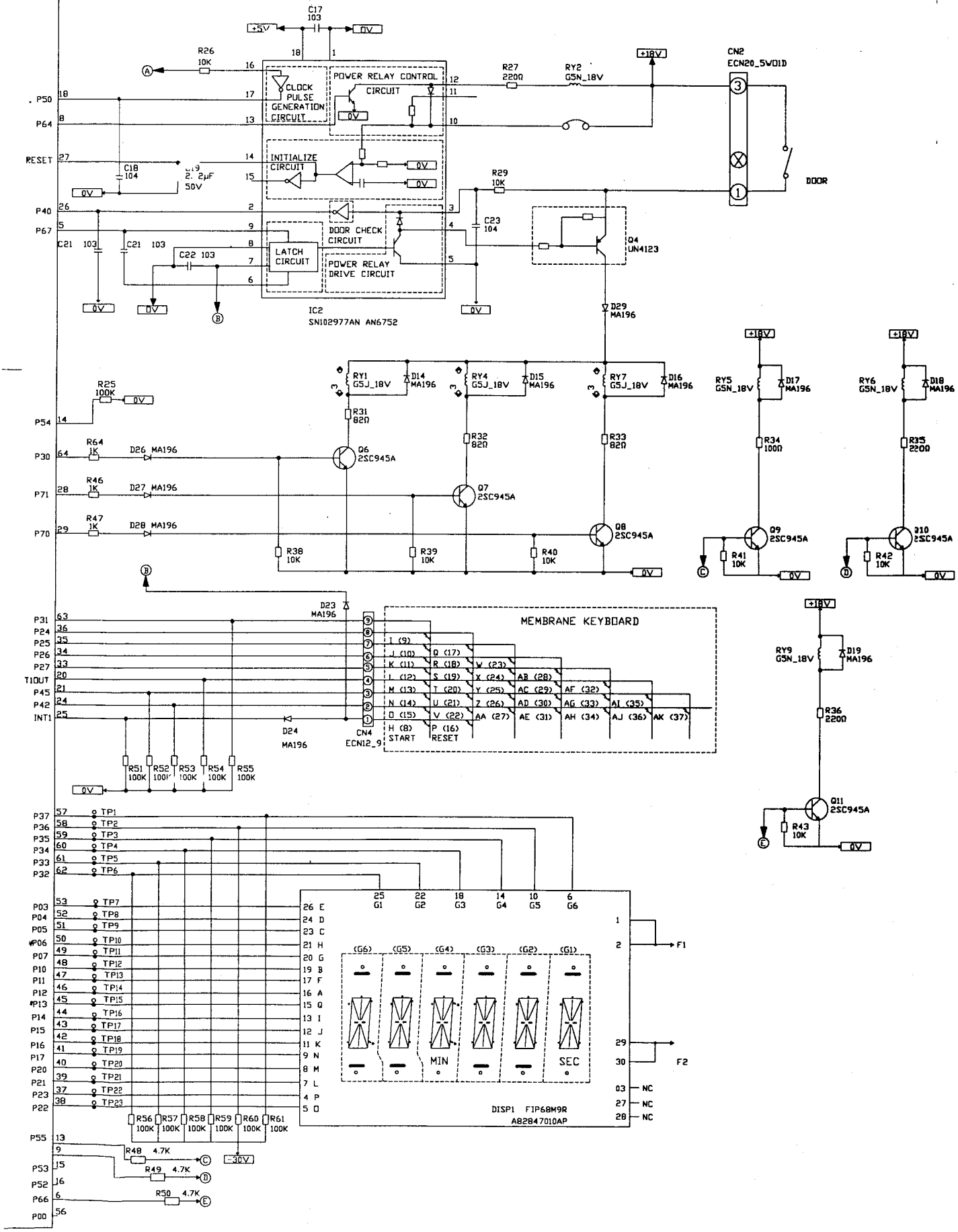

+5V
R53 10K
R57 1K_C1
R56 10K_C1
CN2 ECN20_5W01D
SHUTTER_SWITCH
DOOR_SWITCH
C44 103_C1
POWER RELAY CONTROL CIRCUIT
CLOCK PULSE GENERATION CIRCUIT
INITIALIZE CIRCUIT
DOOR CHECK CIRCUIT
LATCH CIRCUIT
POWER RELAY DRIVE CIRCUIT
R65
+18V
C19 104_C2
C29 0.47_50V
C31 103_C1
C47 104_C2
R35 10K_C1
D31 MA113
R94 10K_C1
R95 2.2K_1W
Q8 2SB710A
R52 100K_C1
C46 103_C1
C30 103_C1
C45 103_C1
IC9 SN102977AN AN6752
R40 1K_C1
R41 10K_C1
CX1 4. 19MHZ
Q4 LN2111
R50 2.2K_C1
BZ1 2KHZ
R59 1K_C1
D19 MA113
-25V
R34 910K_C1
C22 103_C1
CN4 ECN20_4
OVEN_THERMISTER
R35 1K_C1
C21 103_C1
D23 155355
CN7 ECN12_10
AUTO2
AUTO3 FAN GRILL
AUTO4 CONV
AUTO5 GRILL CONV
AUTO6 COMBI
AUTO7 V. DEF
AUTO8 POWER
AUTO1 GRILL
RESET START
1MIN
10MIN STAND
1HOUR CLOCK CONVER
POWER MORE
10SEC LESS
D24 155355
R42 68K_C1
R43 68K_C1
R44 68K_C1
R45 68K_C1
R46 68K_C1
R47 68K_C1
R48 68K_C1
R49 68K_C1
R50 68K_C1
R51 68K_C1
C34 103_C1
C35 103_C1
C36 103_C1
C37 103_C1
C38 103_C1
C39 103_C1
C40 103_C1
C41 103_C1
C42 103_C1
C43 103_C1
TP8
TP9
TP10
TP11
TP12
TP13
TP30
TP14
TP15
TP16
TP17
TP18
TP19
TP20
TP21
TP22
TP23
TP24
TP25
TP26
TP27
TP28
TP29
DISP1 FIP69M9R
MIN
SEC
KEYBOARD MATRIX
R17 580_1W
R14 580_1W
D26 MA113
R89 580_C1
Q10 2SD602A
R90 10K_C1

DIGITAL PROGRAMMER CIRCUIT

SCHEMATIC DIAGRAM (NN-C877WB NN-C877CB)



PRINT BASE AU	IC1	JPR1
E603L8020BP	174	OPEN
E603L9010BP	182	OPEN


C17 103
+5V
0V
R26 10K
POWER RELAY CONTROL CIRCUIT
CLOCK PULSE GENERATION CIRCUIT
INITIALIZE CIRCUIT
DOOR CHECK CIRCUIT
LATCH CIRCUIT
POWER RELAY DRIVE CIRCUIT
IC2
SN102977AN AN6752
R27 220Ω
RY2 G5N_18V
+18V
CN2 ECN20_5V01D
DOOR
R29 10K
C23 104
Q4 UN4123
D29 MA196
C18 104
C19 2.2μF 50V
C21 103
C22 103
P50
P64
RESET
P40
P67
RY1 G5J_18V
RY4 G5J_18V
RY7 G5J_18V
D14 MA196
D15 MA196
D16 MA196
RY5 G5N_18V
RY6 G5N_18V
D17 MA196
D18 MA196
R25 100K
R31 82Ω
R32 82Ω
R33 82Ω
R34 100Ω
R35 220Ω
P54
P30
P71
P70
R64 1K
R46 1K
R47 1K
D26 MA196
D27 MA196
D28 MA196
Q6 2SC945A
Q7 2SC945A
Q8 2SC945A
Q9 2SC945A
Q10 2SC945A
R38 10K
R39 10K
R40 10K
R41 10K
R42 10K
D23 MA196
D24 MA196
CN4 ECN12_9
MEMBRANE KEYBOARD
P31
P24
P25
P26
P27
T1OUT
P45
P42
INT1
R51 100K
R52 100K
R53 100K
R54 100K
R55 100K
RY9 G5N_18V
D19 MA196
R36 220Ω
Q11 2SC945A
R43 10K
P37
P36
P35
P34
P33
P32
P03
P04
P05
WP06
P07
P10
P11
P12
WP13
P14
P15
P16
P17
P20
P21
P23
P22
TP1
TP2
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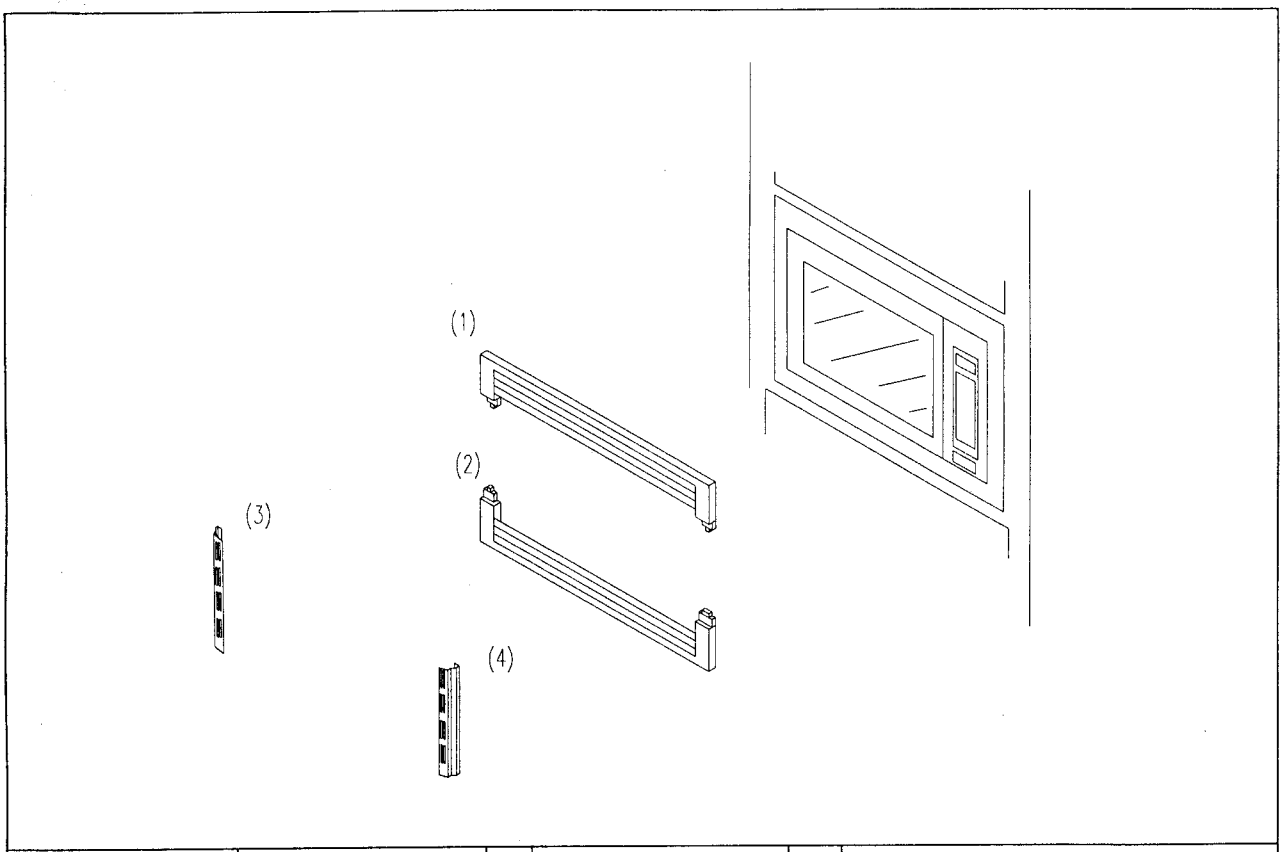
TP8
TP9
TP10
TP11
TP12
TP13
TP14
TP15
TP16
TP17
TP18
TP19
TP20
TP21
TP22
TP23
R56 100K
R57 100K
R58 100K
R59 100K
R60 100K
R61 100K
P55
P53
P52
P66
P00
R48 4.7K
R49 4.7K
R50 4.7K
-30V
DISP1 F1P68M9R
A82847010AP
MIN
SEC
F1
F2
NC
NC
NC

PARTS LIST FOR MICROWAVE OVEN TRIM KITS



Trim kit model no.	Top and bottom	Set	Side strip	Set	Microwave oven model no.
NN-TKC87CB NN-TKC87WB	E1603A510BP E1603A510HBP	2 2	E1601A540BP E1601A540HBP	2 2	NN-C897CB, NN-C877CB NN-C897WB, NN-C877WB

Noise filter unit E692Y6700BP (REF 1)

*C1	ECQU2A104MN	POLYESTER CAPACITOR	1	0.1micro F 250V 20%
*C2,C3	ECKDNS472mex	CERAMIC CAPACITOR	2	0.004 micr F 250V 20%
*F1	A62316010BP	FUSE HOLDER	2	
*L1	A621A5540GP	FILTER COIL	1	
*R2	ERD25FJ564S	CARBON FILM RESISTOR	2	560k Ohm 1/4 W +- 5%
*ZNR1	ERZC10DK621F	VARISTOR	1	
*ZNR2,3	ERZC10DK112A	VARISTOR	2	

Power supply board E603Y9000BP (REF 50) (NN-C897WB NN-C897CB ONLY)

T100	ETP48JJF61QA	LOW VOLTAGE TRANSFORMER	1	
RY2,5,6,9	AEBGG5N1A18	RELAY	4	
D103,104, 105,106	MA196-(TA5)	DIODE	4	

JH SM API

S-9000BP
S-9010BP
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